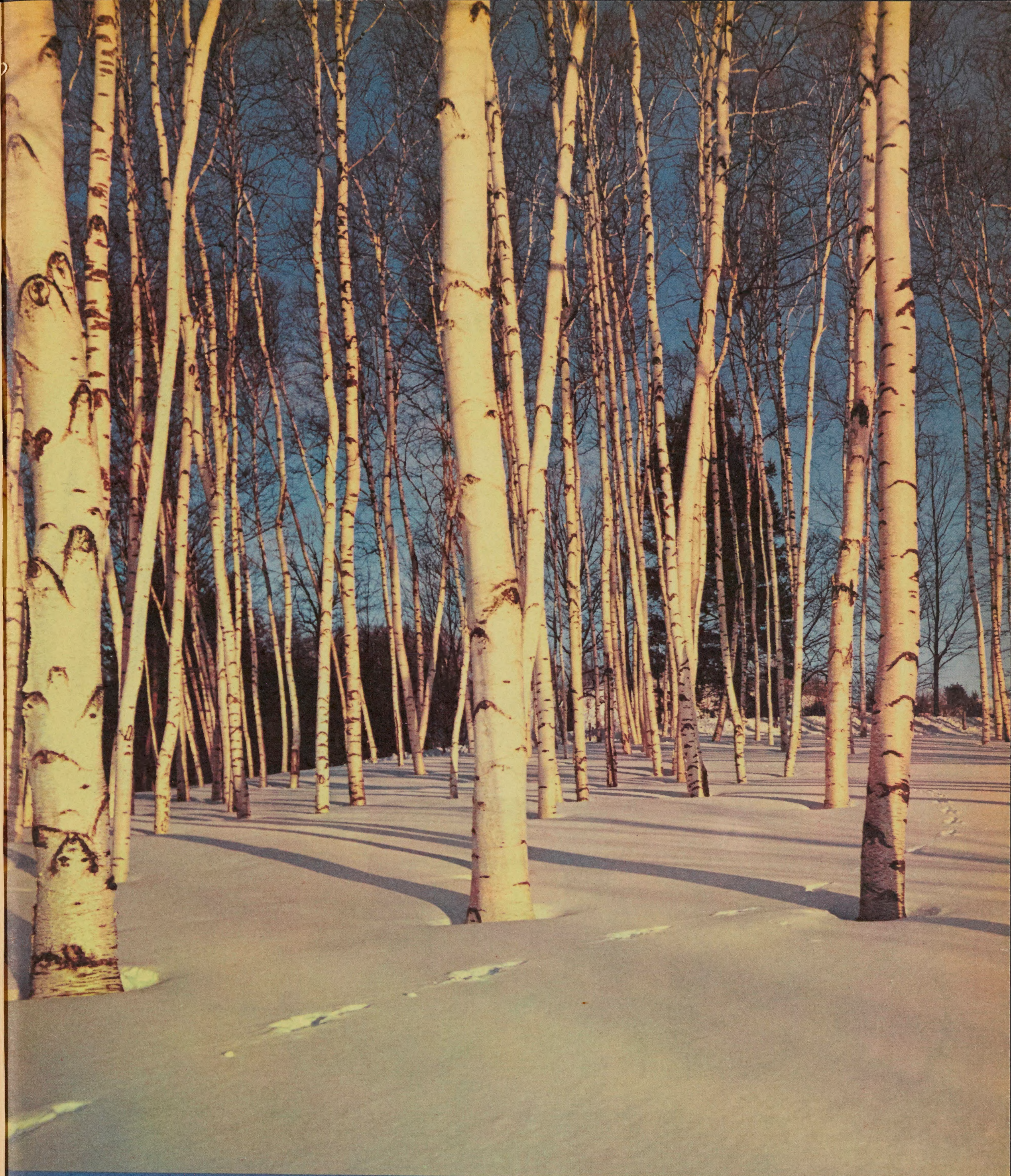


Editorial



JANUARY 1966



American Agriculturist
and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

"What'll I do? I can't afford a big expensive system for manure liquids!"

Look to New Idea

Yes, sir. A New Idea spreader can handle sloppy manure. Here's how:

New Idea offers farmers an economical "right now" answer to the problem of handling sloppy manure. Every spreader in the New Idea line can be fitted with a positive action hydraulic or mechanical endgate that raises and lowers to trap and save those liquids with their high nitrogen content until you get to the fields. Endgates are structural steel for strength, Penta treated clear yellow pine for acid resistance—and hot sprayed with quality paints for long life.

Got a problem with sloppy manure?

Look to New Idea, and get the money saver with a full year written guarantee.

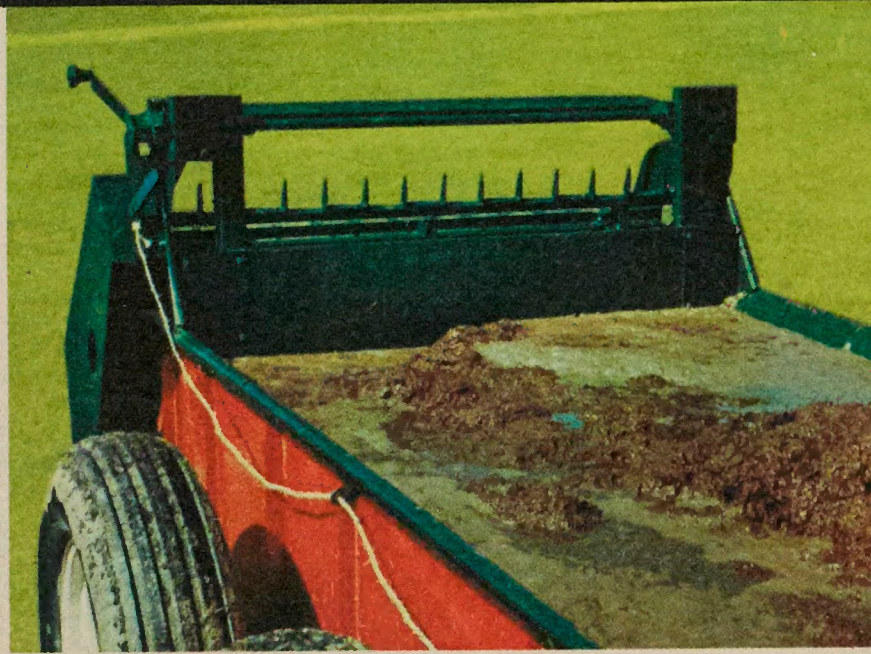
New Idea, Coldwater, Ohio.



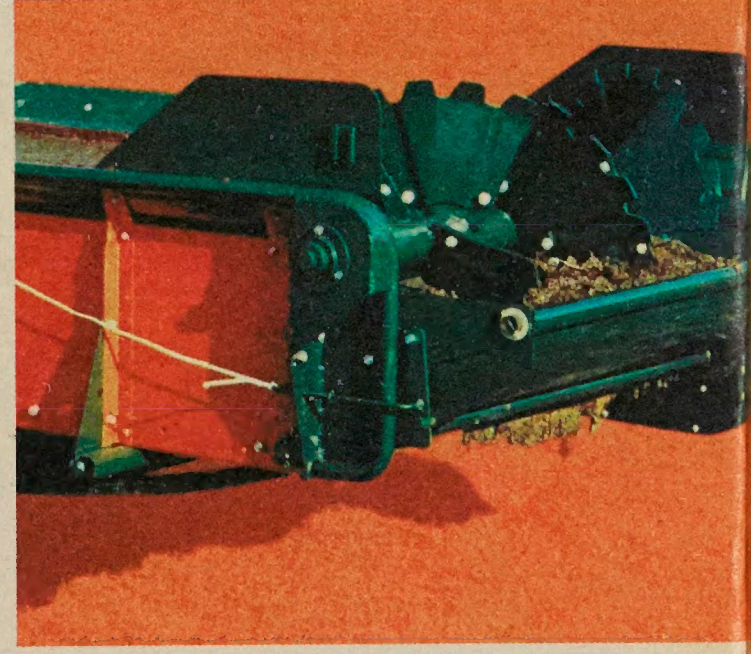
where bold new ideas pay off for profit-minded farmers



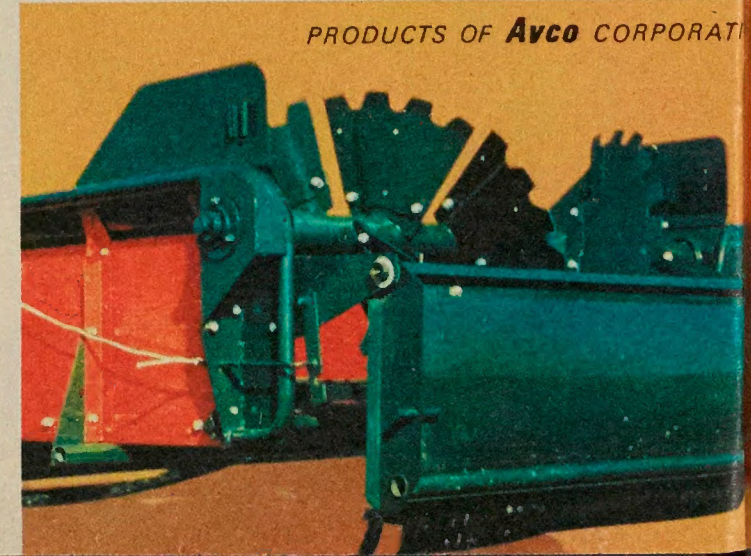
HYDRAULIC ENDGATE. Fingertip control of endgate. Uses standard 8" single or double acting cylinder. Keeps liquid off roads and lanes. Hand crank also available. Fits all New Idea Flail and Single Beater spreaders.



MECHANICAL ENDGATE. The economical answer for farms with semi-liquid manure to spread. Easily operated hand crank opens and closes "gate." Snug fit for loading and hauling; fits all New Idea spreaders.



PAN ATTACHMENT. Lowest cost way to handle semi-liquid manure. Rubber flap seals pan in closed position. Tug on the rope at the pan empties. Fits any New Idea Single Beater spreader.



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American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 163, No. 1

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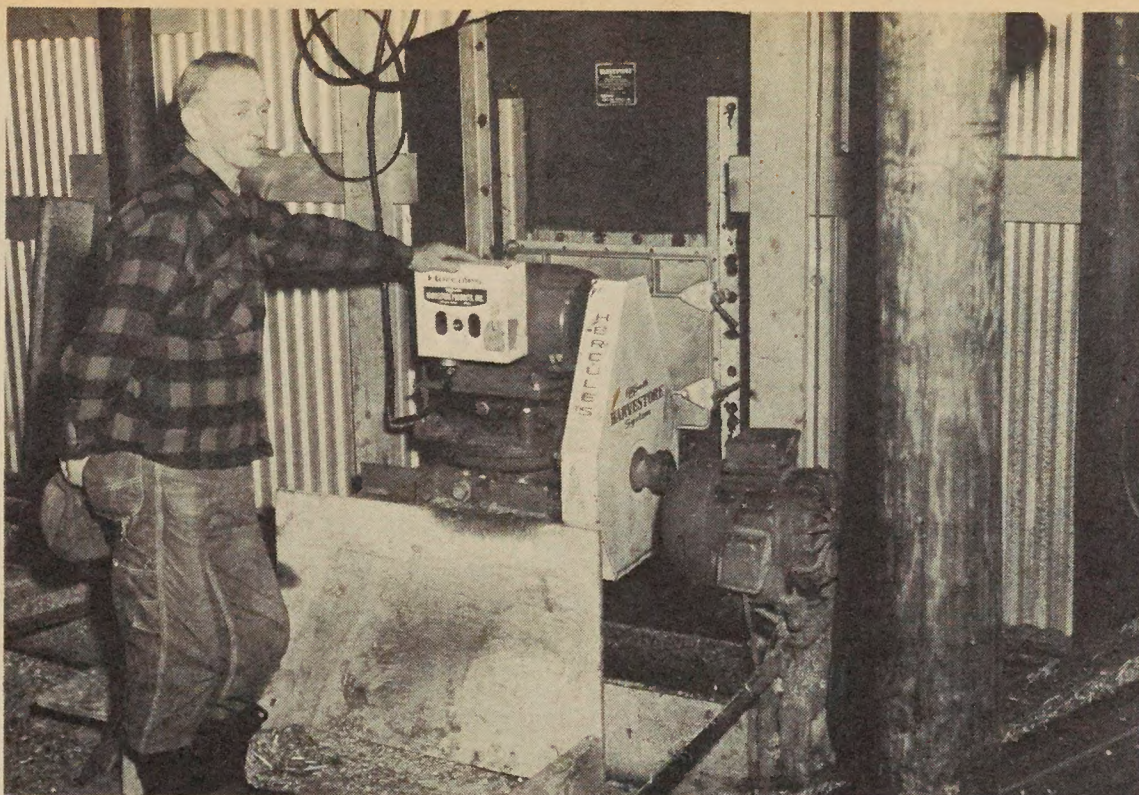
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He's feeding silage to a whole barnful of cows! But herdsman Burton Simmons doesn't have to fork an ounce of it.

PROFILE OF A BARN

THE LARCHARS of New Berlin, New York... John H. and his sons John R. and William... were visited not long ago by 800 people on the occasion of an open house sponsored by the New York State Electric and Gas Company. What was all the excitement about? An efficient 80 x 165-foot barn having 129 free stalls.

Silages are the only roughage normally fed... unless it runs out for a short time as it did in the winter of '64-'65. Two Harvestore silos, each 20 x 60, hold the roughage; another measuring 20 x 27 contains 186 tons of high-moisture (27 percent) shelled corn purchased each fall from a grower in New York's Central Plain.

Mechanized

All three silos are connected by conveyors to the auger distributing along the inside feed bunk. Feeding demands knowing which buttons to manipulate... but no grunt and groan of lifting! Corn silage is fed every morning and evening right after milking; haylage is augered out through the day so there is always some available to the herd. Corn silage fills the herd up so they aren't excited about coming into the parlor for grain... which explains the timing just mentioned.

Grain is fed in the double-3 herringbone milking parlor and in the feed bunk, but no attempt is made to feed any one of the 105 cows differently from the others. Grain is kept in front of the cows

all the time they are in the parlor, though, so the ones that eat faster get more of it. At the feed bunk, grain can be put on top of silage, but it is more often fed by itself.

Manure Handling

Manure is scraped from the alleyways into floor openings above a 50,000-gallon tank, from which it is pumped into a 1400-gallon tank spreader. These openings... wide enough for a cow to fall through... would be narrowed to 4 to 6 inches if the Larchars were building again. The underground tank can store one month's supply of waste products from the herd. Bedding is sawdust... a material that handles easily, especially through the pump and spreader. Sawdust is added in the stalls four times a year.

When emptying time comes, five loads (7,000 gallons) of water is dumped into the holding tank from the spreader. This provides enough liquid to mix the solids into a pumpable slurry. The manure pump fills the spreader in just a few seconds more than a minute... so stand back!

It takes one day to get the storage tank contents mixed into a slurry, and a day and a half to draw and spread it... mostly on sod fields.

Cows stay in the well-ventilated barn the year around; the Larchars find that letting them out in an exercise lot encourages the bad habit of lying down in the alley-

ways rather than in the stalls. Each stall is 7.5 feet long; 6 feet ahead of the rear curb is a pipe across the top of stall that forces cows to move back when they get up. The Larchars would prefer this pipe only 5.5 feet ahead of the rear curb.

As for construction materials, the inside walls are formed by 3/4-inch exterior plywood. Next, toward the outside is a layer of 25/32 insulated sheathing, and then the outside layer of aluminum roofing. The ceiling has three inches of poured-type insulation to help keep things warm; two exhaust fans with a capacity of 24,000 cfm keep the air moving from a one-inch ventilation slot all around the barn at the eaves.

There is a hospital area with three box stalls and room for six stanchions. Next to it is the parlor, then the milkhouse with its 1250-gallon bulk tank... and room for another one of the same size. There's also a bathroom that meets all the requirements of US Public Health service codes.

Across the Northeast, barns such as this are rewriting the rules on cows per man... and milk produced per worker. And they are ushering in a new era in dairy farming... what some call "biological manufacturing." Management becomes constantly more important in this new era. — G. L. Conklin

NDC AWARDS

The National Dairy Council has received several awards during 1965.

Beginning in February, the organization received the Crested Clover Citation from the Cooperative Extension Service of the U.S. Department of Agriculture. The Extension Service cited NDC "for distinguished and outstanding nationwide support of 4-H Club work."

March brought a Certificate of Honor from the Educational Film Library Association for NDC's movie, "Food, the Color of Life." And in April the coveted Golden Eagle Award was presented by CINE to National Dairy Council and Affiliated Units for the new picture. The CINE (Council on International Nontheatrical Events) award qualifies the NDC movie, and others so selected, to represent the United States in film festivals abroad.

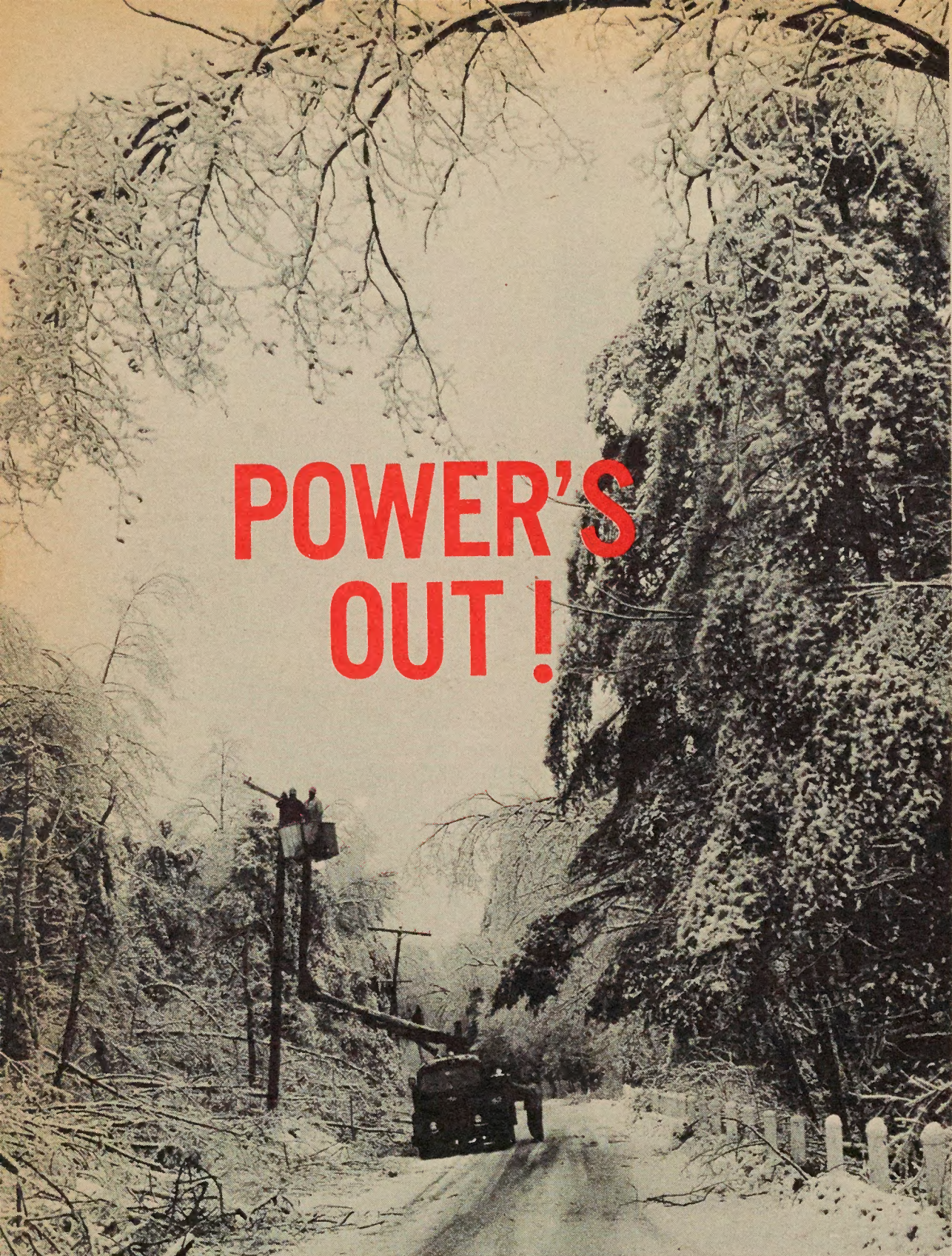
The Silver Anvil Award for student programs was presented in May by the Public Relations Society of America to National Dairy Council and Affiliated Units: recognizing the significant contributions by NDC toward improving the nutrition habits of teenagers.

Finally, in June the Grand Prize in "Seventeen" Magazine's first "Rose" Award competition was presented to National Dairy Council and Affiliated Units in recognition of their outstanding contribution to improved teenage nutrition through service to homemaking education.



John R. Larchar watches silage pounding down the line for all those hungry cows!

POWER'S OUT!



Niagara Mohawk Power Corp.

It doesn't happen often, but when the power lines are down a modern farmstead needs auxiliary power . . .

by E. W. Foss*

THE FAMOUS BLACKOUT of the Northeast on November 9, 1965, started many farmers thinking about an auxiliary power supply. As millions of kilowatts surged in giant whiplashes across the northeastern power grid, the various areas of the region became a tumbling row of giant dominoes . . . plunging each other into darkness.

The ice storm in the Capitol District of New York State early in 1965 also brought forcibly to many farmers (as well as homeowners) their dependence upon electric power. Whether it was power for the milking machine compressor, ventilating fans, water pump, furnace, or freezer . . . hardships were created for everyone without electric power. Line crews from a wide area worked around the clock in the massive job of restoring service, but even so some families were "powerless" for a number of days.

The New York State Civil Defense Commission performed heroic services in providing emergency electric power to hospitals and other public agencies. Many private portable generating units worked full time at first one farm and then the next. Others kept freezing and frost from many

urban and suburban homes by operating furnace motors and burners at first one house and then another.

Every year, somewhere, our Northeast is struck by freezing rain, high winds, or heavy snows sufficient to cause electric power outages. A standby generator, costing little more than one or two years' fire insurance premium, can relieve you of great mental anxiety as well as handling the necessities of electric power for the duration of the central power outage.

Equipment Available

Standby generators come in many shapes and sizes, with and without many extras. For convenience in discussing, they have been separated into four classes: (1) large engine-generator units often permanently mounted and sometimes automatic; (2) large generator units either belt or PTO-operated, usually by farm tractor; (3) small portable engine-generator units; and (4) automobile-powered units.

Large Engine Units

An excellent installation of such a unit was shown to the writer by Chuck White, farm manager for Babcock's Poultry Farms and Hatchery of Ithaca, New York.

Their prime need at the farm is continuous ventilation, but one unit must also operate lights, automatic feeders, and pump water. Other large units are at the hatchery.

One unit, a 10 K.V.A. (Kilo Volt Ampere — roughly equivalent to kilowatts) is powered by a Wisconsin engine running a Winco generator. It will automatically start when needed through a control unit manufactured by Federal Pacific Electric Company.

The second Babcock farm visited had a larger unit, a 25 K.V.A. unit powered by a LeRoy engine operating a Westinghouse generator. Both units generate single phase 115-230 volts, 60 cycle A.C. While the former unit is gasoline-powered, the second unit uses propane gas for fuel and is preferred by Chuck. This second unit has an Onan automatic charger which maintains the battery (to crank the engine) always up to peak performance. Each of these units is started and tested once a week under load. Testing . . . and under load . . . is most important, and must be performed regularly or your reliability is missing.

Another unit (war surplus) a 15 K.W. Willys-G.E. combination, was purchased by Stanley Scheffler of Lansing, New York, and poses both an answer and a problem. He purchased it primarily to operate a 3/4 hp. milker unit and a 1.5 hp. conveyor. He also hoped it would power a 5 hp. silo unloader. Unfortunately, the generator is a three phase unit, so that only one phase (with 5 K.W. capacity) can be connected to the single phase power supply. He has the generator unit garage mounted to be connected to his 200 amp entrance via a double-throw double-pole switch. (More about this later).

Large engine-generators for most farm use should be single phase, develop 115-230 volt power at 60 cycles alternating current. Some large farms that have three phase power will probably want to purchase three phase generator units to power their three phase motors. Single phase generators are available in many sizes . . .

the larger units usually 7.5, 10, 12, 15, 25 K.W. and larger.

PTO or Belt-Powered

For many farmers, such as Stanley Bothwell of East Genoa, New York, the farm tractor can nicely power a generator unit and thus save the cost of an extra engine. Moreover, the tractor has adequate power to handle a farm-sized generator and, since the tractor is in use almost constantly, does not require testing once a week. Usually, the generator is housed in a small shed near the farm (or barn) electric entrance and positioned so that the tractor can be connected to the generator by belt or PTO shaft. Because the PTO shaft is easier to connect than a belt, it is recommended. Most companies manufacturing the generator can also provide (for an extra charge) the PTO gearbox attachment kit.

Small Portable Units

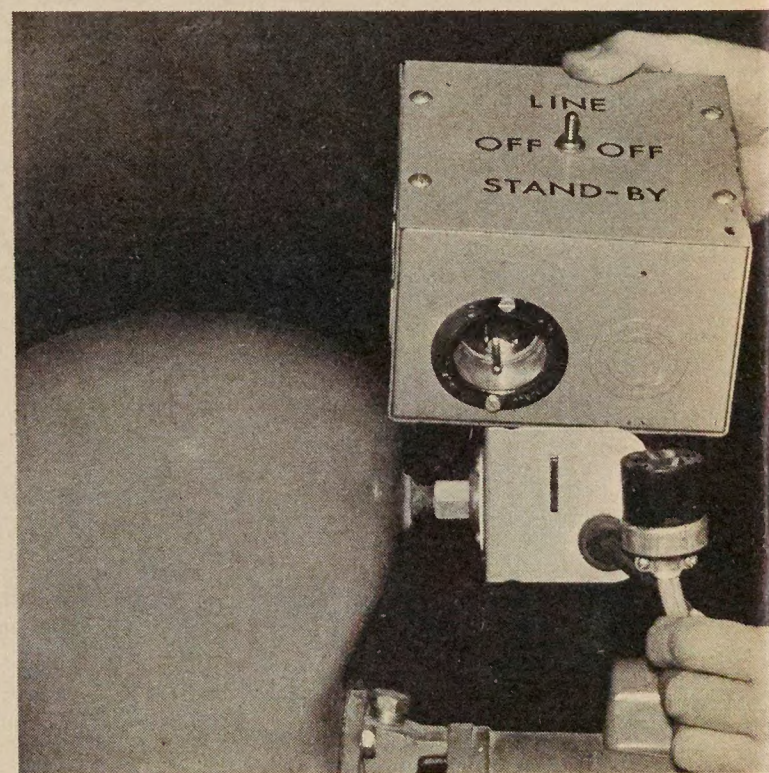
Several companies manufacture small engine-powered generators normally used by contractors and sportsmen. These are usually sized from 750 to 2500 watts, and will operate lights and/or small motors. If you intend to operate furnace fans or other small permanently-mounted house or farm motors be sure to check the motor nameplate.

Some of these units develop D.C. (direct current) and while they will operate lights and portable motors, they will not operate standard alternating current split phase, capacitor, or repulsion-induction motors powering nearly all permanently-mounted electrical equipment. To be acceptable for the latter purpose the nameplate should state that the unit is an A-C 115 (and/or 230) volt unit operating at 60 cycles. Of course, the plate will also have the output rating in number of watts, kilowatts, or K.V.A. varying according to the size of unit.


Larger units usually operate at 1800 r.p.m., while smaller units operate at 3600. The engine must have an accurate governor to maintain this speed (regardless of

(Continued on page 26)

Here's a double-pole, double-throw 20 ampere toggle switch mounted in an electric box (4 x 6 x 6) marked for Line, Off, and Stand-by. On the bottom of the box is a motor base (male) outlet to receive extension cord from generator. This box can be made up by your electrician and mounted on water pump, furnace, or other appliance.



* Agricultural Engineer, Cornell University, Ithaca, N.Y.



**Tractor performance
you're missing to
make up lost time...**

**...you get in a
NEW John Deere
53 h.p.* 2510
...with big 3020-
4020 features**

Here, in the new "2510," are all the high-production features of the 70 h.p. "3020" and 94 h.p. "4020." Variable-speed engine—gas or Diesel. Field-proved transmission with proper spacing of ground travel speeds. And an exclusive all-job package of hydraulic power: Power Shift . . . Power Steering . . . Power Brakes . . . Power-on-Demand for implement control . . .

Power-assisted PTO Control . . . and Power Differential

Lock. The new "2510" packs all these features and many more in a most attractively priced package.

When the rush is on to finish spring tillage work, the new "2510" puts rush into 3 or 4 bottoms or a 9-1/2-foot double-action disk. You'll move ahead steadily . . . 4 to 5 mph. Power-in-reserve built up by the "2510's" new 4-cylinder engine—gas or Diesel—conquers most tough spots. And single-lever control of either Power Shift or Syncro-Range Transmission makes it quick and easy to shift down to whip through really stubborn conditions.

This new "2510" keeps implements hustling and jobs on schedule throughout the year. Drilling 4 or 6 rows at speeds up to 7-1/2 mph. Cultivating 4 or 6 rows with down-pressure on front rigs provided by cylinder-powered front rockshaft. Keeping power-driven hay tools—540 and 1,000 rpm—working up to full capacity full time . . . controlled independently of all other tractor operations. And at corn-picking time, the new "2510" wades in powering a 2-row mounted picker.

This new "2510" will even improve *your* performance on the job. Deluxe arm-chair seat, adjustable for height and weight, keeps you relaxed and alert across long hours.

See your John Deere dealer and arrange a "2510" test drive. Ask about his convenient financing.



**With Syncro-Range Transmission. Maximum observed h.p. at the PTO at 2,500 engine rpm (factory observed).*

JOHN DEERE
Moline, Illinois





EDITORIALS

by GORDON CONKLIN

GREETING!

In all the years since American Agriculturist was first printed . . . in May, 1842 . . . the good will and confidence of our readers have been our greatest asset.

In the year ahead, we shall continue our efforts to merit your continued good will, and to make each issue a vital source of information and satisfaction to you.

May this year be a good one for you and yours . . . best wishes for good health and happiness in great abundance.

Sincerely,

Jim Hall, Publisher

Gordon Conklin, Editor

FAT CHANCE

There's a deep, dark suspicion going around in the meat industry that the "fatless wonder" . . . the lean or meat-type hog . . . just doesn't taste as good as his roly-poly predecessor. This may be part of the reason why per capita consumption of pork has been showing a steady drop for a number of years.

Maybe dairymen should take note of this development and wonder about overdoing the removal of fat from milk and milk products. While the nutritionists and medical men issue learned treatises on what's best for people, agriculture had better remember that Americans buy what they want . . . not what someone says is good for them!

Let's face it, folks, people spend their money for what satisfies their inner wishes . . . with only partial attention to what is "good" for them. The gals of the nation spend millions each year to attract the boys . . . regardless of the chastity advice in the Ladies Home Journal. People spend billions annually for intestinal lubrication in the form of Ol' Panther, and more billions for the adult pacifiers featuring the weed. In spite of all the publicity about cholesterol and overweight, statistics indicate that per capita consumption of total fats has increased in recent years.

Dairymen . . . indeed, producers or marketers of any food product . . . shouldn't be stampeded by either the experts or the food faddists.

INTERNATIONAL TRADE

One of the arguments that rages around the nation concerns imports of foreign dairy products, beef, and other agricultural items that compete with domestic production. Considerable pressure has been brought on Congress to severely restrict or even eliminate some of this competition from overseas.

It is certainly true that lower wage rates in other countries tend to put us at a competitive disadvantage in terms of cost per unit. This makes it possible for foreign nations to send items to this country and undersell us, and still make a profit after paying shipping costs.

To get this whole problem of international trade into perspective, we should remember that the Northeast worries quite a bit about "cheap" milk moving in from Wisconsin and Minnesota. Likewise, New England producers worry about "cheap" milk moving into their markets from New York and Pennsylvania.

Another thing that we must remember is that farmers find they can often buy produc-

tion materials, such as barbed wire and baling twine, cheaper from sales outlets supplied from overseas than they can from suppliers of U.S.-produced items.

It is a fact of life that in order to sell something to someone we have to also buy from them. In recent years, 2/3 of the U.S. wheat crop, nearly 2/3 of the rice crop, close to 1/2 of our soybeans, 1/3 of the cotton and 1/4 of the tobacco produced in this country has moved abroad. Therefore, agriculture in this country has a very large stake in retaining and hopefully enlarging the overseas market for agricultural products. In order to do this, we'll have to buy things from these nations who are buying from us, because when all the complexities have been boiled out of the international trade arrangements, the whole thing sugars off to a process of bartering.

It is tempting to try to attain a situation where we can sell heavily to other countries, but at the same time protect our industry and agriculture from competition from those same countries. However, this kind of an arrangement just isn't in the cards for the simple reason that I mentioned . . . payment for our products is ultimately made in terms of material goods produced by the buying nations.

If we erect import barriers one upon another, the long-run effect will be that other nations of the world will tend to erect similar barriers against what we want to sell. The courts in this country have constantly struck down artificial trade barriers between regions and between states. The reasons why they chose to do this are applicable to the situation that prevails in an ever-shrinking world . . . shrinking in terms of the mobility of transportation and the ease with which products can be shipped from one country to another.

There is a possibility that the United States, blessed as it is with tremendous food production resources, may become an even more important producer of food for export. In order for this country to move in that direction, though, it needs to be careful about the degree of restriction it imposes upon imports, or else it will find itself unable profitably to sell its food products to a hungry world . . . a world that is becoming more capable year by year of buying this food at prices to give a good return to American farmers.

JUNGLE OF WORDS

Looked over a USDA release defending the 1965 Omnibus Farm Bill and had some thoughts as I read. . . .

USDA — By protecting the Nation's most basic productive plant . . . the farm economy . . . the new law assures continuing production of food and fiber abundance at fair prices. It promises that the consumer will need to spend less of his take-home pay and yet eat better every year for the next four years, just as he has been able to do every year since 1960.

Aw, come on, fellas! That's a dirty trick to use the words "less of his take-home pay" . . . this is a half-truth. Sure, the average consumer will spend for food a smaller portion of what is in his pay envelope . . . because food prices at the supermarket can stay low . . . but part of what he now pays for food will be in the form of income tax withheld before he gets his pay. The consumer will actually pay more because Uncle Sam will withhold part of his income and pay it directly

to farmers via the federal treasury.

Personally, I don't like having the consumer get the idea that food prices must always remain cheap relative to other things he buys. What's so wrong with higher food prices?

And I don't like having farmers' returns depend on political decisions in a country where 94 percent of the voters are nonfarmers!

USDA — The success of the wheat and feed grain programs the past few years has been the result of a voluntary participation. A record total of 1,489,222 farms participated in the 1965 Feed Grain Program.

That famous national wheat referendum in which not even a majority of wheat growers voted "yes" to stringent government controls has been conveniently forgotten. And the new program is rigged so such an embarrassing situation will not be repeated . . . they're not taking any chances on coming up with another turkey in the wheatstraw!

The "success" of the wheat and feed grain programs can be measured, I suppose, by the fact that of 47 billion dollars spent on farm subsidies since the 1930's, 25 billions were spent on wheat and feed grain programs. The biggest problems remain in connection with those very commodities on which government programs have spent the most. Sort of like "curing" a snakebite with whiskey . . . only to become an alcoholic!

In 1965, more than a billion dollars was paid to farmers to hold nearly 37 million acres out of production. Even so, corn output was up 16 percent over '64, wheat up 5 percent, oats 13 percent over '64, sorghum grain 33 percent above '64 figures, and soybean production in 1965 was 22 percent above '64's record crop. In terms of supply management, that's success?

WHADDYA KNOW!

By golly, I just learned the other day that the crow has an official sponsor . . . the Society for the Preservation of the Crow, 25 East 73rd Street, New York, N.Y. 10021. The organization claims the crow faces imminent danger of extinction; I suppose crows are rather scarce in metropolitan New York!

In our society, any downtrodden group can find someone to champion its cause . . . the more unpopular the group, the greater the fervor among the uplifters. What do you say we set up the Organization to Prevent Carping About Carp, or maybe the Society Opposed to Termite Termination? In high schools, we could organize Boobs Battling the Banning of Beagle Bobs . . . or maybe the Short-Skirt Sisters.

There are unlimited possibilities here . . . maybe you can think of other badly-needed organizations.

NOT FOR SALE

One of the less difficult ways to make money in the publishing business is to sell the subscription list of a publication to organizations interested in sending direct mail advertising. The AA-RNY, however, has always resisted this temptation, and therefore has not been responsible for any additions to the amount of direct mail advertising our subscribers may find in their mailboxes.

We have always valued very highly the confidence which our readers have in us, and we wouldn't want to jeopardize that confidence by selling a subscriber's name and address.

American Agriculturist, January, 1966

Two 1,000 gallon Sunset Bulk Milk Coolers—every day pickup

Automatic, cleaned-in-place, Perfection Pipeline Panel milking system

TeSa Water Injector makes slurry of grain ration

TeSa Metered Feeding System for milking parlor—amount of grain determined by milk production of each cow

Two-man, double-six herringbone milking parlor

Sheffield Farm—Cooperstown, N.Y.

152 COWS—FREE-STALL AUTOMATED SYSTEM

Agway built the Sheffields a 1980 barn today

By 1980 economists say the average dairy herd will be nearly double its present size. It's your Agway's job to be ready to service this expansion—long before 1980.

Right now a number of dairy farmers are moving to meet this economic challenge. William Sheffield has.

Mr. Sheffield has increased his herd size by five hundred percent

since 1959. He and his son Bill (above) can double the herd at any time in the future by extending the free-stall and feeding area. Adequate reserve milk storage has been provided.

The Sheffield automated system was planned that way—for future expansion—by Agway. Agway built it from foundation right on through to installation of all-automated equipment, electrical

controls, silos and finish grading. Mr. Sheffield did not have to handle the details.

It is Agway's job to anticipate the demands of the future, to know what the dairy and poultry farmer in Agway territory will need in automated systems 5, 10, even 15 years from today, and to build them that way. When you plan your future, why not start with Agway? Agway Inc.

Agway

FARM STRUCTURES & AUTOMATION SERVICE



ALLIS-CHALMERS • THE TRACTOR PEOPLE • MILWAUKEE, WISCONSIN

“What’s new with Allis-Chalmers, Joe?”

“Just about *everything’s* new,” Joe said, knowing Dave Myers was only kidding. Everybody’d been talking about Joe’s new XT, or 77 in the non-turbocharged One-Ninety. Speaking of turbocharging—it gives this new D-21 tractor a full 93 horsepower, and yet, big as it is, a man can row-crop with it. Here’s a middleweight D-17 with 52.7 horsepower for quick and easy 4-bottom work; and a welterweight D-15, 46 horsepower champ in the 3-plow class. A line as new and modern as great engineers can make. But the *newest* thing isn’t me-

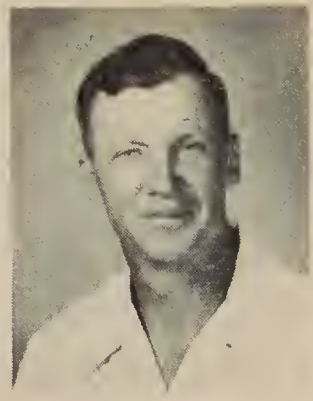
chanical at all—it’s an *idea*. These are *more* than tractors, Dave—they’re *key power for system farming*.” They walked over to the display of A-C plows, discs, planters, hay tools, forage harvesters and silver Gleaners. “It’s a new world, Dave, and Allis-Chalmers is moving with it—even our own new credit plans.” Dave grinned and said, “So what *else* is new, Joe?”



BHL



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Gayway Farm Notes

by HAROLD HAWLEY

SHOPPING AROUND PAYS

For years we have bought most of our seed corn from the same company. However, most years we have tried a little from one or two other companies. This year was admittedly exceptional in about every way, yet it is worth noting that one of the varieties we were kind of watching from another source seemed to have a definite edge over our regular favorites. This variety will certainly get another chance to show its stuff next year.

With so much real progress in plant breeding, it certainly is hard to keep up with what is best... and dangerous to blindly stick by an old favorite just because it "has always done pretty good." As a matter of fact, I'm beginning to think that a little greater spread in maturity dates and a wider difference in genetic make-up is one of our better insurances against some of the hazards of corn growing. Some seed definitely stands drought better; and, of course, some earlier varieties assure hard corn even if the frost comes early. A mixture of varieties and a spread of planting dates also spreads out tasseling and pollinating dates so that all this vital process doesn't have to take place at once. We might have a short unfavorable period which could cut down on fertilization and subsequent yield.

This whole business of becoming married to one variety or company has its hazards. We used to do all our machinery business with one outfit. This has lots of advantages, such as one place to go for parts and the added service which goes to a good customer who does lots of business with one place.

No Corner

However, no one line of equipment has a corner on all the best items and features, and we find ourselves shopping more and more for the item which best fits our needs regardless of the color of the paint. The shopping around we do also has the effect of putting us in a position to bargain, as we have a choice of dealers and price. We realize the service which goes with a machine is every bit as important as the design of the machine, and we go a long way to favor the dealer or dealers who have demonstrated the desire and ability to get us moving quickly after a breakdown.

In this regard we feel very fortunate in that we do business with some real conscientious and accommodating people. The presence of branch supply depots helps them to give good service. They

are all, however, sometimes severely handicapped in their desire to serve by the thin inventory of some parts backing them up at the branches. Certainly we continue to be influenced in our buying by our experience with the equipment and in getting service for it.

We can't help but reflect at the great improvement not only in machine design but, of equal importance, in its ability to stand a lot of steady hard going for hours and hours. An example of this hour-after-hour of hard use is our forage harvester. A couple of thousand tons of fine-cut feed represents a lot of chopping. What machine of ten years ago could have stood up to this job... much less been able to handle it at the rate this rig considers "normal"?

It wasn't so long ago that a heavy growth of straw spelled problems at wheat harvest time; wrapping and slugging the cylinder along with breakdowns of the machine were all a part of the job. Now we have machines which have more capacity, plus bigger power plants to run them, coupled with parts which if properly greased go along hour after hour, day after day, with no problems. It's a real step forward for everyone.

SILO CHUTE

TO CONVEYOR

A great many farmers are facing a need of how to get corn silage or haylage from a silo chute to an auger or conveyor without having a lot of lost feed. This becomes an increasing problem as silos are located away from barns and the bottoms of the chutes are not necessarily enclosed in a silo room.

Just the dropping of the feed causes some air blast and loss of feed unless there is a pretty tightly-enclosed chute all the way to and into the auger or conveyor. Naturally, a system open to the wind and rain needs real good protection to prevent blowing of feed and freeze-up of equipment.

Had to Build

We had supposed we could buy a ready-made affair to spout the silage down and over to the conveyor. It turned out that we could locate no one who had what we needed. The next best thing was to build something.

From one silo chute it was straight down to the conveyor; from the other one it was four feet from the bottom of the silo to the conveyor. We first put a hopper over the conveyor and plywood sides from the chute to the hopper.

Of course, one of these had to be removable so we could get into the hopper and climb up the chute.

For the other silo we put plywood sides and top from the bottom of the chute over to the hopper. For the bottom of this diagonal affair we put in a door hinged at the bottom. When closed it holds the silage in so it slides down and across to the hopper. When we want to go up the silo chute we merely push up the door and it hinges open. The only bad part is when coming down the silo chute... it is hard to reach down and open this door.

Obviously it was no real hardship to build these two chute extensions, yet we would have preferred to have bought some pre-fabricated metal ones if they had been available. This could be a market and an opportunity for some company, as there are many others needing chute extensions.

SHOOTING

FOR THE MOON

Some of the almost unbelievable corn yields which have been obtained on relatively small acreages where someone has gone all out to set a record, leave most of us a little breathless and sometimes a little cold. Certainly on a practical basis there are limits to how much one can spend. I'm pretty well convinced that most of us are a long way from realizing our full yield potential on corn... and probably on our other crops, too.

Without in any way wanting to appear to pass as an expert... which I certainly am not... like most other farmers I have some pretty strong beliefs on some of our weaknesses and shortcomings.

Both from observation and experience it appears there is still too much long-season seed being planted. The idea seems to persist that top yields are associated with long-season varieties. Under optimum conditions, this may be a sound belief, but over a period of years with corn yields measured on a dry basis or on a total digestible nutrient basis, the medium to early varieties have done us a lot more good. An early frost with resultant soft and immature corn and possibly spoilage can cut average yields and returns badly on some later varieties.

Certainly this was a year to emphasize the absolute necessity for weed control if yields were to be good. A couple of our fields that were sprayed with 2,4-D and where weeds came on later suffered

very badly from the drought and loss of moisture to weeds. Where Atrazine was used and weeds controlled, the yields were doubled. Never again will we settle for less than a full season control measure if we can help it. We were afraid to use Atrazine where we planned to follow corn with wheat this fall or oats next spring. We now think we'll risk any possible residual on the next crop in order to get protection for the corn.

I'm sure the variation in soil is so great that any generalization on minimum tillage is dangerous. On our silty clay loam type of soil we are convinced that one disking is enough most times. There have been times when we would have made money by a second disking on parts of a field... a clay knoll or a side hill section where extra leveling and more depth of loose soil might have resulted in better seed coverage and better germination.

For others on other kinds of soil different treatment would make sense. As a kind of aside, it's interesting to note that one reason for a single disking was to leave the soil loose so weeds wouldn't germinate. Really that reason seems pretty unimportant if one is to use Atrazine.

How Much Fertilizer?

There is a lot of difference of opinion as to how much fertilizer a corn crop can pay for, or more properly how much more fertilizer will be profitable. There is no difference of opinion that whatever the lime needs they must be met to get top results. We have frequently gone beyond recommendations on fertilizer, but we've not always felt that it paid off, especially when moisture was short. Given plenty of moisture and a thick stand, I think we can go a long way further with heavy doses of fertilizer before we reach the point of no further profitable yield.

Where this increase in plant population will take us is a real puzzle. Again, if breeders can continue to come up with strains and varieties which will stand crowding, it seems as though the ultimate limiting factor will be amount of water. I'm not suggesting we'll end up with a 3-inch stand in 38-inch rows. Rather it seems likely that narrower rows will do better.

Here we begin to bump into the need for modification of equipment. We have had two absolute bottlenecks on this. Our cultivators just don't narrow up as close as we'd like, and our mounted picker is fine on 38-inch rows and can pick 36-inch rows, but when we start talking 20 or 24 or 28-inch rows we are going to need special equipment.

Some of the really good corn growers we talked to in the Corn Belt are applying spray with the planter for insects as well as for weeds. I know this is the trend here and possibly is one of the steps a lot of us should be considering. If we are to go for real yields we can't let anything reduce stands.

The most obvious additional

(Continued on page 13)

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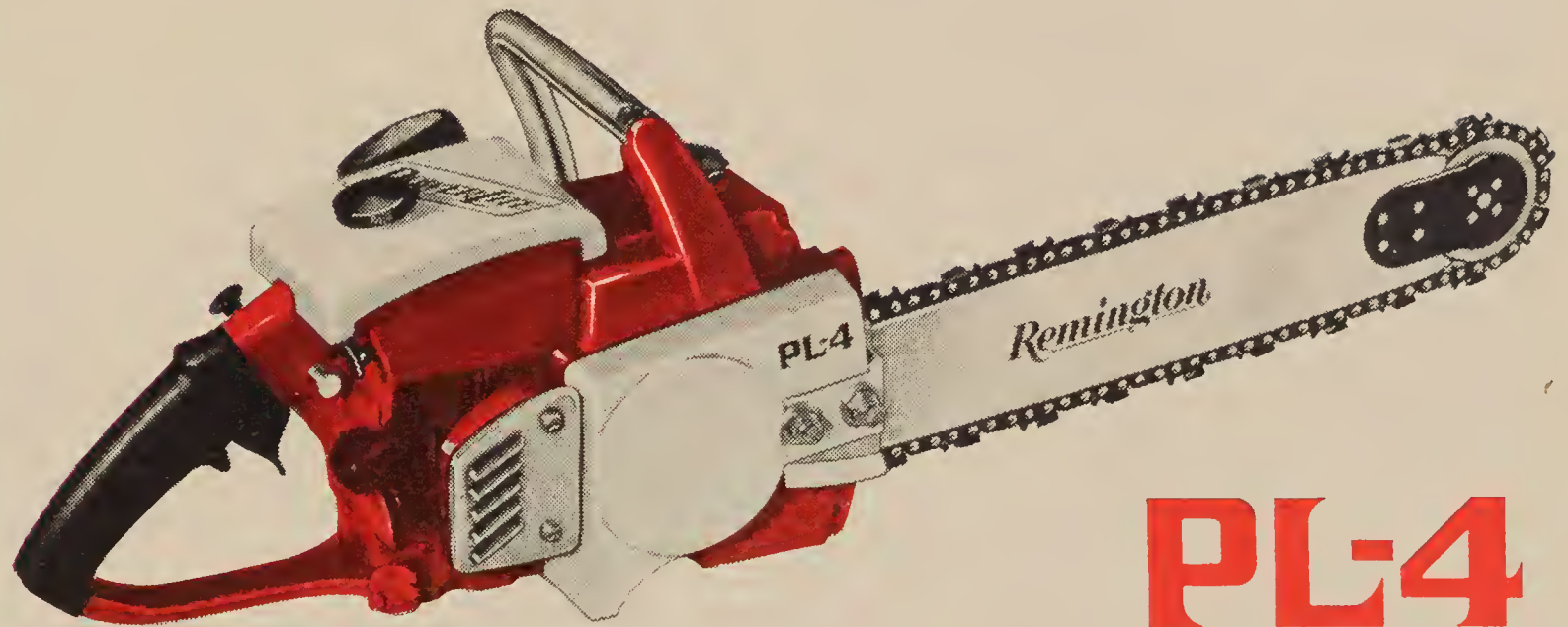
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MORE ENGINE PUNCH



by Wes Thomas

IT'S POSSIBLE to increase the horsepower of your tractor that is several years old so that its performance will be practically equal to that of a brand new "high-powered" model. If you need an increase in horsepower, but have no particular requirement for some of the "convenience" features offered by new tractors, this may prove to be a low-cost solution to your need.

However, before rushing out to have your tractor "hot-rodded" there are a number of things that should be considered. Foremost among these should be the realization that the money you spend on your present tractor is going to result in added power only. It will not give you the many conveniences and productivity features that a brand-new tractor may offer as compared to your present one.

Examples of these which are attainable in the shiny new models are integral power steering, torque converters, power-shiftable transmissions, and multiple hydraulic functions.

Secondly, your existing tractor should have enough transmission gear ratios available so that you can use the added engine power to operate existing equipment at a slightly-greater ground speed. In general, it's not advisable to use the extra engine power by simply pulling larger implements at the same speeds as you presently use.

Basic Facts

With these limitations in mind, here are the basic "facts of life" of tractor engine power that will enable you to evaluate the various methods available to increase engine power output.

Power output of a spark ignition engine is controlled by many different items. Among these are displacement, compression ratio, speed, spark timing, and "breathing." When a tractor manufacturer decides to design and develop a new, higher-horsepower engine, any one or several of these items may be revised. Some of them are adaptable to being revised readily in existing engines, while others are not.

Displacement — An increase in displacement will result in an increase in engine output, provided that the other necessary parts of the engine are revised to use the added displacement. Displacement can be defined as the cross-sectional area of the cylinder multiplied by the length of the stroke, and that in turn multiplied by the number of cylinders.

If an engine is equipped with

removable cylinder sleeves, these can be replaced with sleeves having thinner walls in order to obtain additional displacement. Oversize pistons are used with the new sleeves.

Compression Ratio — This is the ratio of the volume above the piston when it is at the bottom of the stroke (V-1 in the diagram) divided by the volume above the piston when it is at the top of the stroke (V-2 in the diagram). In both cases the volume of the combustion chamber is included.

Increasing the compression ratio causes the fuel-air mixture to be compressed more before ignition. This results in more power being produced when the charge of fuel-air mixture is ignited in the cylinder.

CR Boosted

The compression ratio is increased by the use of oversize pistons. This is a result of the fact that the volume of the cylinder above the piston includes space in the cylinder head as well as in the engine block. The space in the head is not increased as a result of over-sizing the cylinder bore. Thus, the volume above the piston at the top of the stroke (V-2) is not increased in proportion to the volume above the piston at the bottom of the stroke (V-1). Therefore the ratio of V-1 divided by V-2 becomes larger.

The compression ratio is also affected by the distance between the wrist pin and the top of the piston. If this distance is increased (which reduces V-2) the compression ratio is increased.

So, it is possible to increase compression ratio in two respects

with the use of special oversize pistons... the automatic increase resulting from the V-1 divided by V-2 relationship, plus a boost by increasing the distance between the wrist pin and the top of the piston.

Speed — Since horsepower is the product of speed times torque, an increase in speed may result in increased horsepower. However, this is true only for an engine in which the decrease in torque at higher engine speed is small enough that it does not more than offset the effect of the speed increase.

Ignition Timing — Each engine design has a spark setting which will give maximum power. Any setting which provides for ignition earlier in the cycle will result in knocking and early damage to the engine. Any setting later than the optimum setting will result in a smooth-running engine, but it will be wasteful of fuel.

Breathing — This is the characteristic referred to by engineers as "volumetric efficiency." The fuel-air mixture is forced into the cylinders as a result of the partial vacuum produced by the intake stroke of the cylinders. However, since there is resistance to flow through the air filter, carburetor, and intake manifold, the cylinders never receive the weight of fuel which they are theoretically capable of holding.

As the engine speed increases, the volumetric efficiency declines. It's just a matter of the fuel-air mixture not having enough time to get into the cylinder. With less fuel available for each stroke of the piston, the downward force, and resulting torque, is reduced. Thus the reason for the reduction in engine torque at higher speeds.

How are the above principles of engine operation utilized by the makers of the various power-increasing kits? The exact methods vary; no one manufacturer uses all these principles.

Displacement and Compression Ratio — As has been mentioned, a replacement set of sleeves and pistons can provide increased displacement and a higher compression ratio. The replacement pistons are generally made of aluminum; its greater heat-transmitting ability

helps carry away the extra heat produced in the revised cylinder. In some cases, the replacement pistons may have specially shaped tops to produce a greater turbulence in the air-fuel mixture.

Oversize replacement pistons are also available for engines having solid cylinder blocks. However, these blocks require a machine-shop cylinder reboring operation before they can be fitted with the oversize pistons.

Compression Ratio Only — One method of raising the compression ratio is to mill or plane the head so as to reduce the volume of the combustion chamber. This method is often used to "hot rod" auto engines, but it is not recommended for most tractor engines.

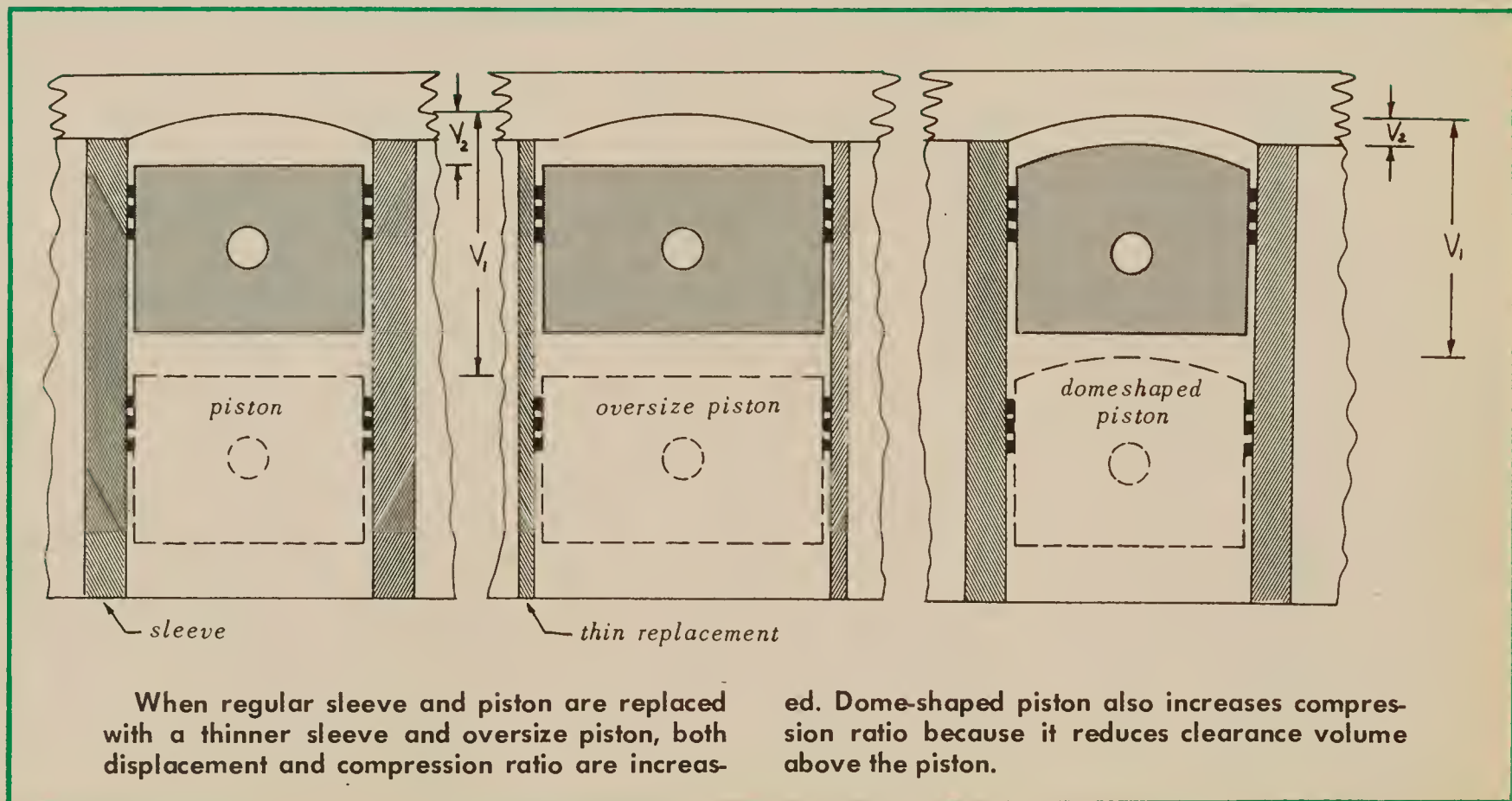
Another method of raising the compression ratio is to use a head gasket of reduced thickness. While the difference between the thickness of two gaskets may seem to be very slight, it is possible to raise the C.R. by this method as much as one-half a unit on some engines.

As the compression ratio is raised, the charge of fuel-air mixture will burn more rapidly when it is ignited by the spark plug. Therefore, with increased compression ratio, the spark timing must be changed. The timing mark on the flywheel no longer applies. The timing should be set with the aid of a shop dynamometer, which provides a means of measuring power output.

Volumetric Efficiency — This may be improved by the installation of a new intake manifold arrangement. The power output of the engine depends upon the weight (rather than the volume) of the fuel-air mixture that reaches the cylinders. The same volume of mixture will weigh more if it is cooler. Thus, the "cold-type" replacement manifolds are designed to provide less heating of the intake portion by the heat from the exhaust portion. However, enough heat must still be provided to provide for smooth operation of the engine at low speeds.

The amount of fuel-air mixture entering the cylinders is also affected by the height of lift of the intake valves. Raising the valves

(Continued on page 23)



Hawley

(Continued from page 10)

thing to be mentioned is the need for timeliness. Frankly, we haven't learned how to plant our acreage of corn all at once, and as a consequence we always plant part of our crop a little later than we would like. We've toyed with the thought of a six or eight-row planter to speed up the whole deal, but haven't felt the extra cost could be justified. This whole problem of how to keep a planter moving 18 to 20 hours a day for a few days in mid-May is a tough one for any dairyman, yet I'm convinced here is one of the keys to better yields.

I've heard good farmers say that to get top yields is to do a whole lot of things well. This involves all these things that we have been talking about and others, too. The cost of growing corn is so high that to settle for an average yield is to preclude any profit. We've got to stir our stumps here to see that we bat a lot higher in doing well every one of the steps which will help to get maximum yield. Looking ahead I'm guessing this means irrigation and modified equipment in addition to what is already being done.

PASSING OUT PENALTIES

Recently a local Justice of the Peace passed out a sentence to a high school student which we are watching with interest. For repeated minor traffic violations the lad was fined and given a short jail sentence. The latter could be served week-ends or it would be excused if a satisfactory composition was written and read to his English class at school. The composition was to be written about the sequence of events from the time of the first apprehension by the law through the whole legal procedure up to and including his trial and sentencing.

In addition to the hoped-for effect on the lad involved, it is expected that the others in school will learn something from his experience. It's worth a try to find some better way of impressing some of our youngsters with their responsibilities as drivers, and I think the Justice is to be commended for his sincere interest and imagination.

NO HAY

When we used to feed long hay, the daily consumption of it varied quite a little. We fed the same amount of silage each day and the same basic amount of hay. However, when we kicked up the hay at noon and at bedtime we frequently added varying amounts. The amount left to be cleaned out of the mangers twice a day also ranged from two or three forkfuls to quite a lot on some occasions. All this by way of saying that the variation in consumption of daily feed by cows is considerable.

Now we feed all chopped feed — three times a day. . . and consumption still varies. With no long hay to take up the slack, or varia-

tion in consumption, we must try to guess at feeding time how much they will clean up. Sometimes they dig into the silage so aggressively that we are sure they will eat a lot more than usual . . . and sometimes they do. We like to have them almost clean up before each new feeding, and find it's a little tough to do. We've finally settled on one man doing all the feeding, if possible, because we find he gets the feel of how the cows are eating. Coupled with how much they ate last feeding he can feed closer to appetite than when we change-off feedings.

I've done a lot of second guessing the cows on why the variation in consumption. Several very good

theories have held temporarily . . . and then been "shot down" by unexplained variations in appetite. Changes in barometric pressure are certainly part of the picture, as are actual temperature disturbances and apparently several other factors we've not been smart enough to evaluate.

RESOLUTIONS

As we approach January 1 and New Year's resolutions time with an awareness that our good intentions last so briefly, perhaps we would dare risk one which wouldn't hurt too badly if we don't have to stay with it too long. If, for one month, we could stick

by a decision to reach conclusions based on fact rather than prejudice, we would have made a start. It's really appalling to examine how we arrive at a lot of our "best answers" . . . enough truth and fact to give plausibility and enough emotion and prejudice to pick up support for our pet projects. Maybe a month would be too long a period to try to stay with a program of complete truthfulness, complete frankness, and fearless examination of a problem from all sides. Such mental housecleaning probably would leave us aghast, but guess I'll give it a brief whirl just to see if I can stand it.

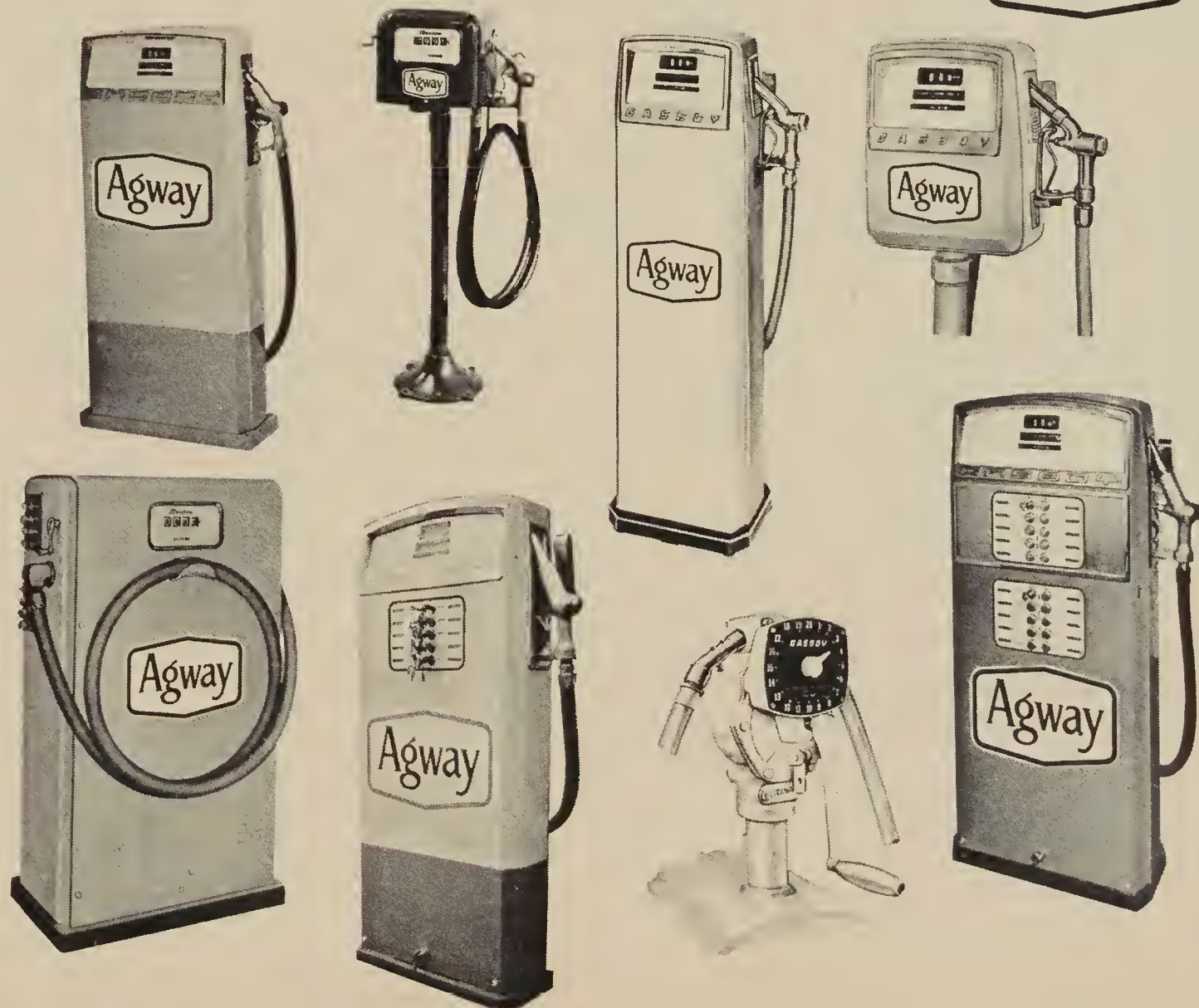
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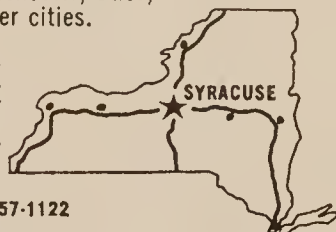
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New Early Tomato

An extremely early tomato, often ripening big red tomatoes by July 4th, has been developed at the Jung Farms in Wisconsin. You can obtain a trial packet of this tomato by sending 10¢ to the Jung Seed Co., Box 80, Randolph, Wis. They will not only send you this tomato seed but also a packet of the glorious Giant Hybrid Zinnias and a copy of their 59th catalog, America's most colorful 1966 seed catalog.

MASTITIS CONTROL PROGRAM

IF YOU ARE having trouble with mastitis... either a little or a lot... you will be interested in some recent developments.

We have already mentioned in the AA-RNY that in New York State the yearly physical examination of all cows by a veterinarian has been replaced with the monthly Modified Whiteside Test. Without going into detail, this is a rapid, inexpensive test which spots abnormal milk even when it is in relatively small amount. This test will be made at the plant when the milk is delivered.

What Next?

What happens thereafter is of particular interest to dairymen. The results of the test are expressed as "Negative," "Trace," "1+," "2+," or "3+." If your milk should test 2+ or over, the State sanitary code for milk provides that you should be notified immediately by the plant, and directed to withhold all abnormal milk from delivery.

A re-test will be made within three days, and if the test shows the milk from your herd still abnormal, the processors may continue to receive it, but you will be required to have a physical examination of your herd by a licensed veterinarian to find and segregate any cows that are producing abnormal milk. The code says that this examination shall be made within 7 days following the re-test... to allow time to get the services of a veterinarian. Unless the plant manager has evidence that this physical examination has been made, he is directed to refuse to accept your milk.

Then, when the third monthly test is made at the plant, you are required... if the test still shows above the allowable amount of abnormal milk... to put the herd under the New York State Mastitis Control Program or some equivalent program.

Physicals Questioned

This may seem somewhat drastic, but actually it is a rather moderate provision. Careful study has shown the Modified Whiteside Test to be workable and far more effective than the annual physical examination, which was a source of irritation both to dairymen and veterinarians. The physical examination could be made on a given date, and within a day or two individual cows might have a serious case of mastitis. The dairyman could see no benefit, and most veterinarians felt that they were wasting their time.

Most authorities agree that mastitis will always be with us, although it is possible to develop and maintain a herd free of streptococcus agalactiae, the chief organism causing mastitis. The trouble is that an attack doesn't give immunity. You can clear up the trouble in an individual cow, but mastitis can recur at any time.

Some years back many dairymen put great faith in the use of antibiotics infused into the udder. In fact, many of them put too much faith in this treatment, and too little in prevention. Because of the nature of the disease, prevention is far better than cure. For one thing, a serious attack actually destroys udder tissue, reducing milk production as long as the animal lives.

All this has been considered in making some changes in the New York State Mastitis Control Program. These changes were made following a thorough discussion by field veterinarians, the administration of the State Veterinary College, New York State Veterinary Medical Society, practicing veterinarians, the Extension Service, and the Committee on Veterinary Medicine of the Milk Sanitarians.

Up to this date the New York State Mastitis Control Program has resulted in 1100 herds free of the organism which causes most of the trouble. It is hoped through the revised program that many more herds will be involved, thus reducing losses to dairymen estimated as averaging a 5 percent decrease in milk production.

First Step

The first step in the new program is a survey of all the herd, without charge to the dairyman. This includes a check of the milking machine by a man qualified to do the job, also the giving of information on correct milking procedures. Then there will be a Modified Whiteside Test made of a composite sample of your herd, and a report on the result given to you and to your veterinarian.

Then there are two possible procedures, referred to as a modified program and a complete program. For these services a slight charge will be made, depending on the services provided. You can get a Modified Whiteside Test in a laboratory on each quarter of every cow for 20 cents per cow, or a composite sample of all four quarters for 10 cents per animal.

While streptococcus agalactiae is the chief offender, there are sometimes other organisms causing trouble. In order to be sure, you can get a complete laboratory culture for each quarter of each cow for 35 cents an animal, or a composite test for 25 cents. There will also be the fee charged by your regular veterinarian.

The modified program includes services for which there is no charge, plus a laboratory testing of samples from all cows or abnormal quarters. On the basis of a conference between the field veterinarian, the local veterinarian and you, the most effective treatment and control will be suggested.

The second option... the complete program... includes the milking machine check, the infor-

mation on milking procedures, and samples from each quarter of each udder to determine the type of infection in case it is not the most common one. Then, in herds that have a high infection there is repeated sampling and testing of each quarter of each cow for three to four weeks, to be followed by treatment until an infection is reduced to a point below 5 percent of the herd. After two consecutive streptococcus agalactiae-free herd surveys, an attractive certificate of eradication will be issued to the dairyman, to which he can "point with pride."

Under the complete program, herds that don't have a mastitis problem will be given an annual survey, including a test of a composite sample of the cows with normal milk, and tests of each quarter of the udder of cows that are detected by the examination to have abnormal milk. Also, if the trouble is due to organisms other than streptococcus agalactiae, a semi-annual survey (or oftener if necessary) will be made. Depending on the result, a corrective procedure will be recommended.

In addition to the monetary loss from mastitis in a herd, there is the effect on the consumer. Abnormal milk develops undesirable flavors, which doubtless have a comparable effect on consumption.

One last word of caution. Many times a careful check has shown that a herd has an appreciable amount of mastitis without the knowledge of the herd owner. There is a tendency to ignore the trouble until it becomes truly serious.


Then, again, many dairymen who feel that they are following recommended milking practices find that a survey by a competent observer may point out weak spots which may eventually lead to trouble.

It would seem that this change in the sanitary codes of the State and New York City, plus changes in the New York State Mastitis Control Program, are a long step in the direction of controlling the trouble caused by mastitis.




"You still hinting for a clothes dryer?"

American Agriculturist, January, 1966



**The extra
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tall, thick cover...**



**...is the
4.7-square-foot
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John Deere
Integral Plow**

Sock it down and plow non-stop! A John Deere F115 or F125 Series Integral Plow keeps you on the go in conditions that would "choke" many other plows quickly and frequently.

Extra-roomy clearance lets you work along steadily in tall, thick cover. Both models have 27-7/8 inches of fore-and-aft clearance (21 inches on the 5-bottom) and 24-1/2 inches between frame bars and share points. Each tunnel on 2- to 4-bottom sizes has a full 4.7 square feet of roominess.

This clearance also permits using large, trash-shearing coulters—up to 20 inches in diameter.

Truss-Frame design provides outstanding strength for fast, deep tillage. Heat-treated frame bars and a large box-beam truss hold standards in rigid alignment even in hardest soils. F125 Series Plows have safety-trip standards for positive protection and convenience. Stiff standards on the F115 Series are fully satisfactory in many areas.

Wide choice of sizes lets you match your tractor and acreage exactly. F115-F125 Series Integral Plows are made in 2-, 3-, 4-, and 5-bottom sizes with 14- or 16-inch frames. The Long Green Line of John Deere Plows also includes semi-integral, drawn, and economy integral moldboard plows. See your John Deere dealer soon for full details.

Ask about his convenient Credit Plan.

JOHN DEERE
Moline, Illinois



FRUIT AND BEEF

Our business is split about 50-50 between fruit and beef cattle. We grow 30 acres of apples, 6 to 7 of sour cherries, and have a breeding herd of 50 purebred Angus.

We grow all the feed for the cows except for a protein supplement. Most of the cows freshen in March. In the fall the steers go into the barn and never leave it, being sold at 15 to 16 months of age. About September 1 the calves are creep-fed oats and later get corn.

The breeding herd is on good improved pasture in summer. We plant corn thick to get small ears, shock it and feed bundles of corn to the cows in winter. We feel they come out better in the spring than when fed corn silage. We do have

one silo of feed for young stock, also a trench silo. We feed good mixed hay, and the cows never get grain.

The steers are sold at Caledonia or Canandaigua. We have the best markets in America. Because New York is a deficit area, we get about a cent a pound above the price at Chicago.

Except for some we cull out, the heifers are sold for breeding stock, some to new or repeat customers and some at auction. We keep the cows as long as they produce calves, and have some that are 19 years old.

I feel that beef production has a good future in New York. A one-man business will need about 50 cows for a breeding herd, and about double that for a commercial operation. — *Robert Watson, Clyde, N.Y.*

REMODELED

In the summer of '65 we changed our stanchion barn so it now has 101 free stalls. We kept 20 stanchions for holding cows needing veterinarian work, artificial insemination, etc. Manure is scraped with a 7-foot tractor-mounted scraper bucket directly into the spreader positioned under an overhanging loading platform.

Our silo unloader delivers silage to a "Vibrafeeder" 100 feet long. Hay is fed in bunks where each opening is V-shaped so a cow has to lift her head to back out... preventing hay being pulled out and wasted. The old barn is used for hay storage; hay-feeding bunks are located along the edge of that building. We think this use of the old barn allows us to recover our

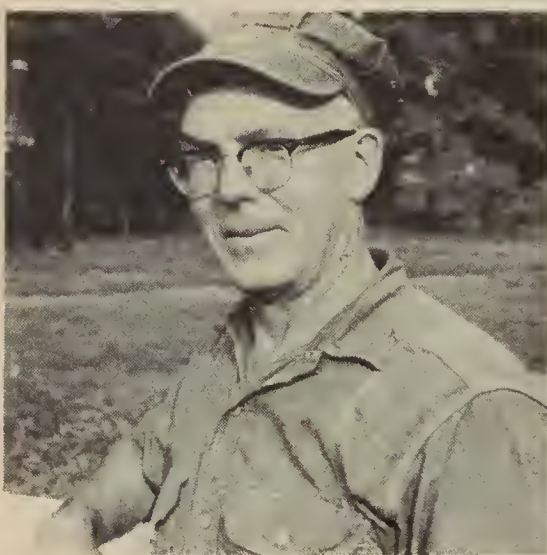
investment in it without allowing it to handicap the efficiency introduced by the new addition we made.

A double-4 herringbone milking parlor and pipeline enables one man to milk our 85 cows. All our grain is now fed in the parlor, but we want to move toward feeding some of it on the silage. In fact, there was provision made when building to have an overhead feed bin that would flow grain on the silage as it went by underneath toward the "shaker" silage feeder.

With this setup, I can see how two men could easily care for 100 cows and do the field work too. Our two self-unloading wagons are typical of the field mechanization equipment that matches farmstead automation. — *Ralph Space, Freeville, New York.*

Personal Farm Experience

The items on this page all come from the firing line of farm production.



Ed Collins

COMBINATION WORKS

We have around 6,000 hens and 40 producing cows, with room for 67. I understand that a combination of poultry and dairy is rather unusual, but it works well for us.

Some years ago we had 12,000 hens and just a few cows. We sold a lot of eggs on retail routes; now we sell most of them right at the farm, including some sales to stores. We buy pullets rather than raise replacements.

My son (now a freshman at the University of Connecticut) likes cows so we enlarged the dairy enterprise. We have free stalls and a milking parlor. Corn silage is stored in a bunk. We have a self-feeding arrangement with an electric fence which we move frequently. It works well for us, but needs some management as to height of fence and frequency of moving.

Our hay is all alfalfa. We have made three cuttings (up to September 18), and will cut once more after a killing frost. We put on 0-10-30 in the fall. Most of the manure goes on corn but some is put on alfalfa in the fall.

If our son wants to run the

dairy after he finishes college, I plan to put most of my time on the hens. I should add that without a retail market, we would be out of the egg business entirely. — *Ed Collins, Hazardville, Connecticut*

NARROW ROWS

The soils where we grow corn are gravelly, with the water table close enough so moisture is more available from below than might be the case on some fields with a heavy clay subsoil. Also, we can get on these fields early in the spring... and they warm up early, too.

In fact, we started planting corn on May 8 in 1965, finished up on May 25. We planted in rows 28 inches apart... using a bushel to a bushel-and-a-half of medium-flat seed per acre. Our two-row planter has a tool bar on which the planter units can easily be adjusted to whatever row interval is desired.

Fertilization includes 1,000 pounds of 10-10-10 per acre plowed down, plus 100 pounds per acre of ammonium nitrate broadcast on top of the ground after corn is up. We want to get the crop off to a fast start so it will shade the ground and conserve moisture by the time hot weather arrives.

After the corn seed has germinated, but seedlings not yet emerged, a springtooth harrow is pulled rapidly across the field to kill weed seedlings. The drag is carefully adjusted so the teeth are all at the same shallow depth. After dragging, the field is sprayed with 2,4-D; we also cultivate twice... for weed control and to incorporate in the soil.

Cultivators are also easily adjustable on a tool bar. Rear tractor wheels have to be adjusted to

fit the narrow rows; we use one tricycle tractor, and another with adjustable front wheels. Our chopper has a guide running from the right-hand front point back over the right-hand wheel so the chopper wheel doesn't pull down corn in the standing row... which is pretty close because of narrow rows.

We spread our corn maturity season out in 1965 by using two early, one medium, and one late-maturing variety. We never select a variety whose maturity rating is in excess of 115 days, though. This past season, corn was frozen by early cold weather before ensiled.

From 37 acres we filled and re-filled a square 18 x 18 x 56 silo, and a 16 x 50 round tub. Besides, we began greenchopping corn the last of July when ears were at the blister stage... earlier than we preferred. — *Robert Petzold, New-ark Valley, New York.*

ROUGHAGE

We have been putting up haylage or low-moisture grass silage in a glass-lined 17 x 40 steel silo for 14 years. This past year we put up another silo 20 x 60, and will put haylage in that and high-moisture shelled corn in the older one.

We believe the secret of good haylage is to cut it fine. Deciding when the moisture content is right is a matter of judgment, but when you squeeze a handful and it springs back it's about right.

We plan to use only haylage and corn silage for roughage. We will buy wet shelled corn because we do not have the ground to grow it. We will also buy a high protein

supplement if we feel the cows need it.

We have 100 head of Guernseys, with 64 milking at present. The DHIA tester calls the working force 2½ men. I'm the half man... and sometimes I think I am over-rated.

My two sons, Donald (33) and Norman (21) are the two men, but it looks as though Norman is due for his stint in the armed forces.

We aim to meet the cost-price squeeze by cutting our feed costs, and hopefully by more milk per cow. — *Harold Vaill, Goshen, Connecticut*

NEVER SATISFIED

Apparently a dairyman can never be satisfied with the production of his herd. I remember when a 500-pound fat average got statewide attention. Now we have several in Onondaga County at that level, and some up to 600 pounds.

We were among the first to get into artificial breeding, and to start DHIC testing. Along with others,

our herd production has increased steadily to around 14,000 pounds of milk per cow per year.

I like to use proven bulls, but have used semen from some of the younger bulls owned by the AI studs. Obviously, bulls don't live forever, and it stands to reason that young bulls carefully picked will have heifers with good production.

I am still a bit skeptical about
(Continued on next page)
American Agriculturist, January, 1966



Bernard Aungier

feeding too much grain before and just after freshening. I feel it can be overdone. I am inclined, also, to give a good-looking, well-bred heifer a second chance, even if she doesn't quite live up to expectations in her first lactation.

I have some doubts, too, about a too-high debt load. I realize that a farmer needs to use some credit, but I think it, too, can be overdone.

At one time we were told this area didn't need lime. Now we apply it regularly. Manure goes on corn ground, plus some commercial fertilizer. We grow enough grain to supply about half what the herd eats. — *Bernard Aungier, Lafayette, N.Y.*



Bill Underwood harvesting cabbage.

USING THE HEAD

Our principal income is from dairy cows, but we grow some cash crops, including 6 acres of cabbage.

In spite of 1965's dry summer, the cabbage crop was big, and there was little sale for those (including ourselves) who had no contract. Rains in September and October were good, and they made the crop. About half the cabbage is sold at our roadside stand, and usually we sell some for kraut.

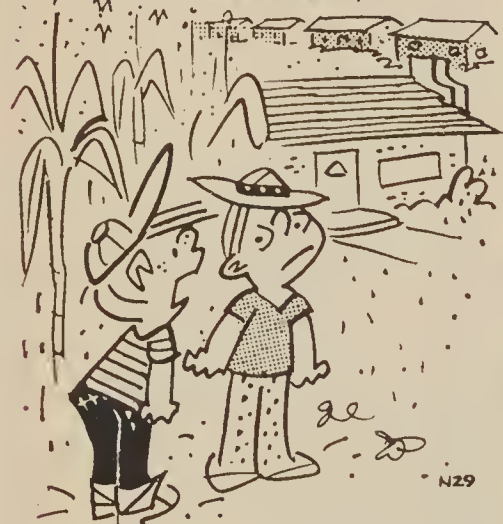
We use a half ton of 8-16-16 per acre, put on an inch to an inch-and-a-half of water per week, and expect to get 30 tons of cabbage per acre.

Cabbage has always been a gambling crop, with prices varying from \$3 a ton to over \$100. However, we always have a market for part of the crop at the stand, and can salvage some of the balance if the price is low by turning the cows into the field.

Probably cabbage isn't worth the cost of growing for cow feed, but the loss is small. And there's always the chance of getting that \$100 per ton! — *Bill Underwood, Tully, N.Y.*

FLETCHER THE 4-H'R

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"Our problem isn't keeping the crows away but keeping suburbia out of our corn field!"

American Agriculturist, January, 1966

On July 1, 1965 the new McCulloch MAC-10 series made every other lightweight chain saw overweight and out-of-date

(25% lighter)
than most lightweight chain saws



MAC 1-10: The world's lightest direct drive chain saw. 10½ lbs.*

MAC 2-10: World's lightest automatic oiling chain saw. 10¾ lbs.*

*POWER UNIT ONLY. DRY LESS BAR AND CHAIN. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

Easiest Operating Lightweights Ever: The new MAC-10 Series saws are up to 25% lighter than most so-called lightweights, yet have every feature you could ask for.

Automatic Oiling: MAC 2-10 features automatic chain oiling for longer bar and chain life *plus* a separate manual system, so you can supply extra oil for the toughest cutting conditions.

Famous McCulloch Dependability: The MAC-10 Series saws are new from grip to tip. New concepts reduce parts by 30%, yet the MAC-10's retain all the performance, features and dependability you expect in a McCulloch.

Extended Working Life: Unlike some other lightweights, the MAC-10's cylinders can be rebored and fitted with new pistons for years of extra life. The MAC-10 Series has ball and needle bearings throughout, and every working part on the MAC-10's is cast and machined from the finest steels and alloys available.

Longer Running Time: With oversize oil and fuel tanks standard on the MAC-10's, you can cut as long as most full sized saws. And with McCulloch's new single-jet carburetion system and new MAC-10 Series engine design, fuel consumption is cut as much as 12%. Precision engine tolerances allow the use of McCulloch oil at a 40:1 gas/oil mix for even more economy and virtually smoke-free operation.

Power For Fast Cutting: McCulloch's advanced engineering means more usable power. When you make the first cut, you'll know that lightweight doesn't mean under-powered.

Fast, Reliable Starting: The MAC-10's combination of primer and exclusive idle governor means you get fast, sure starts. For added convenience, MAC-10's feature right-hand starting.

Runs In Any Position: No matter what position you cut in, you'll get full power from a MAC-10 Series saw. The idle governor allows the MAC-10's to idle without stalling or sputtering.

Pick The One That's Right For You!

MAC 1-10: Complete with specially designed bar and chain. Available with 12", 16", 20" and 24" McCulloch guide bars and new long wearing chain for all general purpose cutting jobs.

MAC 2-10: With the same equipment and options as MAC 1-10, plus automatic chain oiling with separate manual system, special spark arrestor and muffler combination, plasticized handle frame for non-slip operation, and rubber insert on the pistol grip. The MAC 2-10 is ideal for the man who wants a lightweight with everything as standard equipment. See your McCulloch dealer now for a demonstration of the new MAC-10 Series. You'll find him in the Yellow Pages, or for a full-color catalog on the MAC-10's and 9 other new McCullochs, write McCulloch Corp., Dept. AA, 6101 W. Century Boulevard, Los Angeles, Calif. 90045.

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**FABULOUS
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1 See one of the great new McCulloch chain saws at your nearest dealer.

2 Get a \$32 value Garcia spin casting combination for only \$12.50.

Your McCulloch dealer is making this fabulous fish offer just to get you to see a demonstration of any one of the great new McCulloch chain saws, especially the new Mac-10's... the ones that make all other lightweights overweight and out-of-date. □ For just \$12.50, you can buy a Garcia spinning reel and a matching spinning rod. Once you see the new McCullochs, you'll know why your McCulloch dealer is doing this... if you tackle all your cutting jobs with a McCulloch chain saw, you're going to have a lot more time for fishing.

AA FOUNDATION AWARDS

by Isa Liddell

IT'S TWENTY YEARS since the American Agriculturist Foundation first introduced the American Agriculturist Foundation Awards, which go to outstanding high school students in vocational agriculture and homemaking.

Each year more of the students plan for college training prior to joining their fathers on the home farms or starting in for themselves. They recognize that farming today needs all the skill and learning possible to make it a success. "Book learning" plays an important role along with the practical aspects.

Wide Range

Projects with the 1964-65 group of boys winning the award ranged the whole gamut of agriculture . . . dairying, poultry enterprises, vegetables, forestry, beef animals, sheep, fruit, record keeping, building. Interestingly enough, quite a number of boys were not farm-reared although keenly interested in farming.

Those chosen by their teachers and principals for the Foundation Award have shown qualities of leadership and responsibility in school and community. An example is Ivan Fassett, East Springfield (New York) Central School, who has 9 head of purebred Holsteins with a herd average of 15,000 pounds of milk and over 500 pounds fat.

Allen Douglas, Salmon River (New York) Central School, is most interested in learning new methods that he can apply on the home farm. His home is in Canada, but he moved across the border and graduated from Salmon River in June, prior to going back to Canada to farm with his father.

Robert Kaiser, Arcade (New York) Central, has an inventory of about \$1,500 in crop and animal projects.

Many Reports

These and the write-ups that follow are representative of the many reports received by the Foundation from the teachers of agriculture and from the boys themselves. At Old Town (Maine) High School, Stephen Boyington and other members of the school FFA Chapter Farm produced 6½ acres of market peas, beans, tomatoes, sweet corn, and cucumbers. Total cash receipts from the enterprise were \$4,576.77.

The two students who shared the honors at Jamaica Plain High School, Boston, Massachusetts . . . Gary Corning and Herbert Doherty . . . both found good summer jobs on private estates in nearby Brookline at wages of \$2.00 and \$1.75 per hour respectively. Both are now studying at the Stockbridge School of Agriculture, University of Massachusetts.

Gary was an honor student in every subject in high school, and Herbert was nominated by Governor Peabody for the Young Ameri-

can Award . . . one of four nominated in the State.

Thomas Schwartz transferred to Passaic County (New Jersey) Technical School as a junior only a year ago. In this short time he proved himself a capable leader, began a successful veal project, continued with a horse project, and is now in college.

Addison (New York) Central School chose Harold Benjamin for the Foundation Award. A busier young man you could hardly find. He lives on a 153-acre farm, and his program included DeKalb corn trials, soybeans, Holstein cows and heifers, hay, maple syrup. And each year Harold plants 1,000 trees for soil and water conservation purposes, meanwhile taking an active part in FFA activities, exhibiting at county fairs, etc., etc.

Custom Work

Donald Simpson, Jr., Boonville (New York) Central School, is an enterprising young man. He has a net worth of approximately \$5,000 in cattle and machinery, and a spray outfit with which he does custom weed, insect and fertilizer spraying.

Don has held many offices in the FFA chapter, and his teacher, Mr. Howard Teal, describes him as "exemplifying the qualities of a good citizen in both school and community." This fall Don is attending the Toccoa Falls Institute, Georgia, for a year's program in Christian Education, then will continue farming.

At Interlaken (New York) Central School, Lester Hayward was the recipient of the Foundation Award. Lester is a farm boy, raised on a 188-acre farm, active in FFA chapter and in sports. He gained experience not only on the home farm but on neighbor farms, besides having crop and dairy projects.

Lester was chosen to be an exchange student to a foreign country, and June saw him headed for Colombia, South America, to meet a new challenge and have an interesting experience.

Harold P. French graduated in June from Williams High School, Stockbridge, Massachusetts. During his four years in high school he conducted calf, sheep and vegetable garden projects, and worked the year around on a nearby estate caring for animals, gardens and lawns.

Harold's father is dead, and during his high school years Harold contributed over \$3,000 to the support of the family. Now he is taking a post-graduate course at Williams, hoping eventually to become a veterinarian.

At South Middleton Township (Pennsylvania) High School, Christian Otto chose beef for his project. He has shown at the major county fairs and the Pennsylvania Livestock Show in Harrisburg. Meantime he also plays in

(Continued on next page)

American Agriculturist, January, 1966



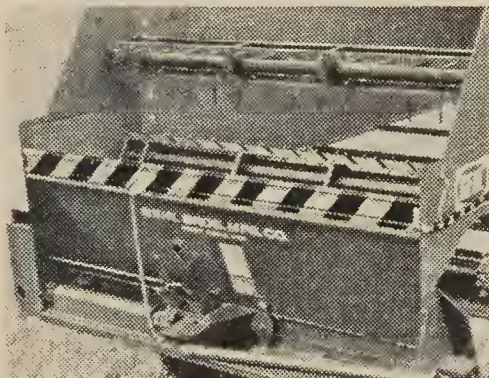
SAFETY... standard with every Gehl box

Gehl Self-Unloading Forage Boxes are safety-tested and farm-proved . . . at the factory and in the field. Give you the safest year 'round crop hauling and handling possible with any box. And, with Gehl, safety is standard equipment.

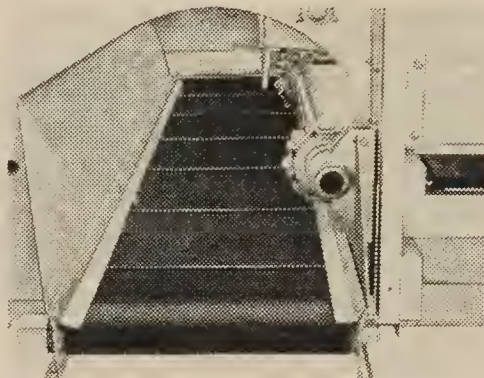
Look for the "quick-action" safety bar. A popular feature on all Gehl Boxes. Simply touch it and you stop unloading action — instantly! Conveniently located up front, across the full width of the box. Or stop it, too, with the side lever — just above the discharge opening.

Unmatched for safety, speed, capacity and versatility . . . Gehl Boxes are ruggedly built for day-in, day-out (mile-after-mile) big load hauling and handling over rough fields and roads.

See your Gehl dealer soon. Ask about the Gehl "Big Red" . . . toughest box ever built — and the safest your money can buy! *Financing available.*



SAFETY . . . STANDARD EQUIPMENT on all Gehl Boxes. Touch the "quick-action" safety bar or side lever to stop unloading action — instantly! Makes Gehl the safest boxes built!



SMOOTH, EVEN-FLOW UNLOADING . . . any crop. Wide, ribbed rubber cross conveyor gives fast, equal distribution. Adjustable belt driven by roller chain for positive delivery.

Make us Prove it with a Demonstration!



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the band, and attended Penn State University FFA Week to play during the Farm Show.

Leadership potential was a strong trait with Francis Laclair of Orleans (Vermont) High School. Mr. Laurent P. Cadieux, teacher of agriculture writes:

"My associations with Francis in the classroom and the Future Farmers of America have been very pleasant and rewarding. . . . He is responsible, and you can always count on him to get the job done. . . . His outstanding job as president of the chapter at our Parent and Son Night rewarded us with numerous compliments. . . .

Francis is now studying at the Vermont Technical College in Randolph, and hopes when he gets through to form a partnership with his Dad.

Vocational Homemaking

So much for the boys. The girls in vocational homemaking are also fine "contributing citizens." Gracious manners and careful grooming characterize them, and they are always ready to help and dependable in carrying through their projects.

Writing to the Foundation directors after she received the Foundation Award, Sandra Rudnick, Palmer (Massachusetts) High School, says:

"In Home Economics I learned more than how to cook and to sew; I learned to understand people better. Most important, I learned that I don't have to be on the same side in an issue as another person in order to be able to respect or to admire him."

Sandra grew up on a dairy farm, but it was during her high school years that she really became aware of the beauty around her. As she expresses it:

"As if for the first time I can see the distant mountains as beautiful, and the woods as peaceful and a place of security. . . . I can hear the bullfrogs and crickets, the cows' hooves click as they walk, the crunching sound they make as they chew, and the clanking shells of the milking machines as they are carried. . . . Every sense is exercised as I become aware of things around me, and I feel that life is good. . . .

"My biggest dream," Sandra continues, "is to help my parents make our farm strong, strong in the sense that the fields are in full production, and a better line of cows. Once I asked, 'Why did I ever get stuck on a farm?' Today



"To think I left my factory job to get away from an assembly line!"

American Agriculturist, January, 1966

I wouldn't change places with any girl. I'm glad I'm a farmer's daughter!"

An illness during her junior year kept Jeanne Southwick, Cazenovia (New York) Central School out of school for an extended period. But she has majored in homemaking and business and done an admirable job in both subjects.

Miss Marjorie Swift, Dryden (New York) Central School, has high praise for Linda Lindow, the Foundation winner. "Linda is a good student, has mature judgment, worthwhile goals, understands people, and gets along well with all age groups. She is courteous, thoughtful of others, has many creative abilities and

shares these abilities with classes to make them interesting."

At Stamford (New York) Central School, the choice fell on Susan Chichester. Susan's teacher, Mrs. Beverly A. Reed, describes her as very responsive in class, mature in her thinking and decision making, and eagerly carrying what she learns in school to her everyday living.

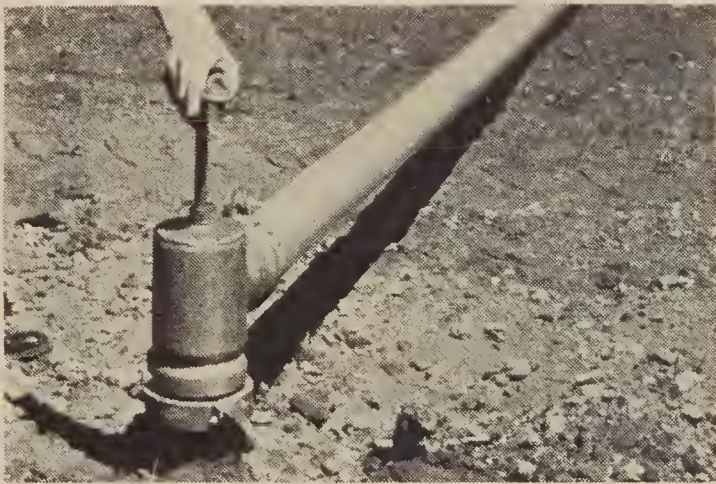
Susan helps her working mother by preparing meals for a family of ten, caring for younger children in the family, taking over many household tasks, thus making time for her mother to teach and also take the college courses that are necessary for her.

Susan enjoys sewing, makes much of her own clothing, and

planned her college wardrobe. Besides all this, she is engaged in remodeling the family home (along with the other members of the family) planning her own bedroom, and using ideas gleaned from her home economics program.

We could go on and on with descriptions of the work done by those girls . . . sewing, cooking, business, music . . . everything pertaining to the home and the community is covered in the profession of homemaking. Suffice to say that we at American Agriculturist are proud of these young men and women. Our very warmest greetings go to all of them, and our best wishes for their continued success and happiness.

BE YOUR OWN RAINMAKER



Fight drought with crop-saving, water-saving sprinkler irrigation using Reynolds Aluminum Irrigation Pipe

Once a man's been through a long, crop-killing drought, he isn't likely to want to repeat the experience. That's why you see more and more sprinkler irrigation systems going in. They give you the "rain" you need when you need it, and where you need it. They mean more profitable yields, regardless of the weather.

But you can't wait until spring if you want this "crop insurance" working for you next summer. It takes time to plan your system, develop your water supply, and install the equipment.

So, if you want irrigation, start now. See your Reynolds Irrigation Pipe Distributor as soon as you can.



He'll help you plan, supply you with the equipment, including tough, rust-free, light-weight pipe—Reynolds Aluminum Irrigation Pipe. For portable or

underground systems, your Reynolds Distributor has the right aluminum pipe for your irrigation needs.

The Reynolds Irrigation Distributor can also help you finance your system through Reynolds Aluminum Credit Corporation.

But the important thing is to see him soon, so your system will be ready for this year. Don't get caught dry. See your Reynolds Irrigation Pipe Distributor or send in the coupon.

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P.O. Box 2346-SZ, Richmond, Va. 23218

Please send me details on Reynolds Aluminum Irrigation Pipe and information on financing.

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REYNOLDS
where new ideas take shape in
ALUMINUM

Watch "The Red Skelton Hour," Tuesdays, CBS-TV



BONUS PAID OFF

by Amos Kirby
New Jersey Editor

NEW JERSEY fruit and vegetable growers have found that it pays off to offer a bonus to Puerto Rican workers who work the full season. An agreement made last spring that those workers who stayed until the end of the season would receive a bonus of 5 cents per hour actually paid off. About 10 to 15 percent of them saw the harvest through, and when they went to the Glassboro Labor Camp to check out were handed bonuses ranging from \$50 to nearly \$100. This was like a Christmas present, and the boys went home happy.

The bonus paid off in other ways, too. The workers stayed on the job; there was less replacement, and enough harvest hands to finish the fall crops. Actually, growers were enabled to get through the season without competing in a tight labor market.

CLEANER BERRY FIELDS

There will be fewer weeds in the strawberry field on the Lloyd and Alvin Yeagle farm near Centerton, Salem County, next spring. The Lloyds followed a recommendation of county agricultural agent Bob

Gardner and applied Dacthal in September.

The Dacthal was applied right after a rain in the wettable form. Although there were no substantial rains between the application and late November, it did kill the weed and chickweed seeds as they germinated.

ROADSIDE MARKETS

Thinking about getting out of the dairy business? Many have that idea... but "what will I do with the farm?"

What about opening a roadside market? From an interview with George Hoffmire, secretary-manager of the Jersey Certified Farm Markets, Inc., comes an idea that is worth sleeping over.

George believes that many farmers in New Jersey could add to their income by establishing roadside markets. This opinion is based on the results for members of the Certified Farm Market group.

The hours may be long, but the rewards can be satisfying. Practically no operators of properly-managed roadside markets in the

Certified Group have gone out of business. If the location is good and there is a desire to grow fruits and vegetables, there can be more profit in 100 ears of good sweet corn than in 100 pounds of milk that may find 40 to 50 percent of it in the manufactured classification.

If interested, "ask George!" He has most of the answers, and his new assignment is full-time with the Jersey Certified Farm Markets, Inc., 168 West State Street, Trenton, New Jersey.

BIG QUESTION

Should New Jersey establish a central marketing agency to handle egg sales? Some say yes; others just as emphatically say no. The issue is far from settled. There are more elements of marketing involved than there are ingredients in a ton of feed. The weather may turn cold during the coming months, but the central marketing agency issue may develop August temperatures on both sides!

WATER PERMITS

Do you have a permit to use the water on, adjoining, or under your farm?

Sounds a bit crazy to ask if you can use the water that you have been taking for generations. But Carleton Heritage, president of the New Jersey Farm Bureau, told the delegates at their annual meeting

in November that every farmer should have such a permit even though he is not planning right now to install irrigation.

Charles Heilig, Sewall, states that a stream running through a farm adds over \$100 an acre to its marketable value; some have claimed more than double that amount. A water permit can be almost as important as a deed to the land at some future date. Growers consider their permits most valuable pieces of equipment!

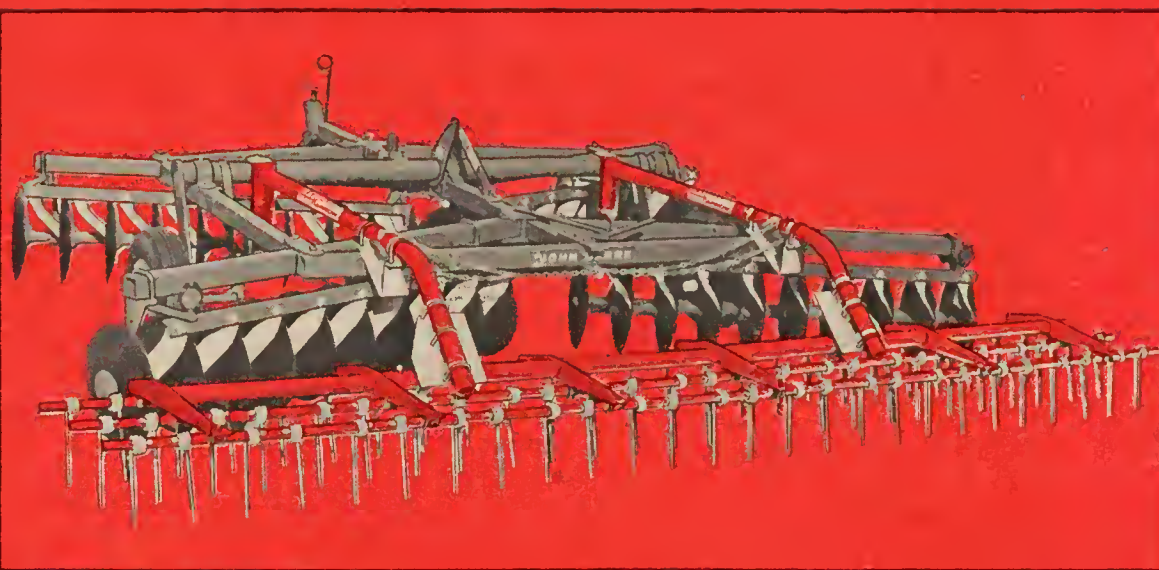
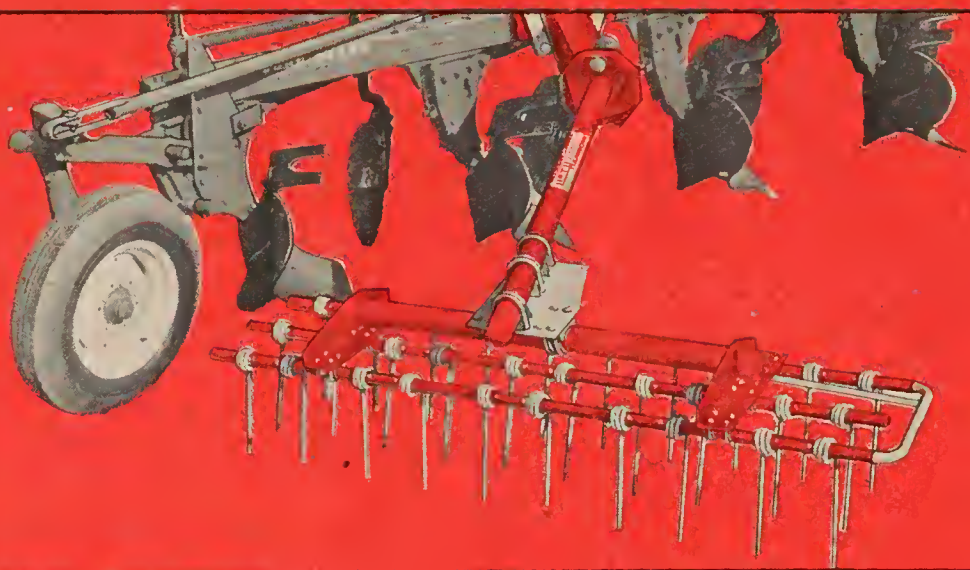
Why not discuss this matter with your agricultural agent? A grower with a water permit is in as good position as the man with a paid-up insurance policy.

BACK TO SCHOOL

Upwards of 100 New Jersey farmers are going back to school this winter for a business management program. Subjects cover such matters as handling labor, increasing efficiency, how to use money and credit, and how to cut costs through some of the same methods now being used by industry.

This is a repeat of the basic idea that was tried out a year ago. Those who took the course—then and put the ideas learned into practice have been highly pleased. During February these two-day schools will be held at Red Bank, Moorestown, Beuna, Sewell, and Millville. County agricultural agents have the details.

You'll prepare the best in seedbeds . . . save time and trips with a new *Midwest* LIFT-HARROW

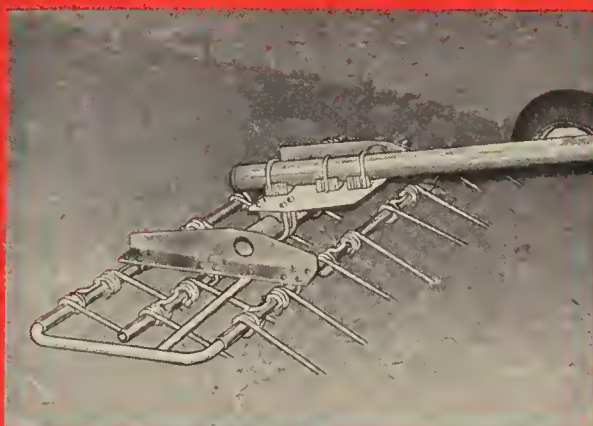


FOR PLOWS—Watch a Midwest Lift-Harrow at work on a plow. See how the coil spring teeth snap clods and break furrow slabs . . . to help you prepare the best in seedbeds. You can equip most any plow with a Lift-Harrow. One section handles up to four bottoms, two to eight. Units raise with plow.

FOR DISKS, FIELD CULTIVATORS—Quick-attach mounting brackets make it easy to mount a Midwest Lift-Harrow to the main frame of most disks and field cultivators to raise and lower instantly. Tooth bars extend to cover disk furrows. Optional extensions make it easy to increase width.



Close-up of Lift-Harrow coil spring teeth at work shows you how they are positioned on mounting bars to assure complete coverage . . . and at same time, spaced to allow trash to pass through and avoid clogging.



Back up if you like! Midwest Swing-Mounted teeth are held in at-work position during forward travel. When it becomes necessary to back with teeth in ground, Lift-Harrow teeth pivot and swing forward.



Godbersen Break-Away protects Lift-Harrow plow units from obstructions. Ground pressure is also adjusted at Break-Away. And it acts as shock absorber.

FREE FOLDER—Send coupon for free Lift-Harrow folder. See how you can save time and trips . . . prepare the best seedbeds possible.



Midwest Industries, Inc., Dept. 13

Ida Grove, Iowa

Please send me a free folder on the new Midwest Lift-Harrow

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Town _____

State _____

FARM BUREAU AND GRANGE POSITIONS ON ISSUES

AT THE last annual meetings of the New York State Grange and the New York Farm Bureau, some of the resolutions agreed on by the delegates were similar . . . others very different.

For example, both organizations recommended that legislation be enacted permitting land devoted to farming to be assessed according to its value for farming purposes. The Grange delegates also called for an increase in individual state and federal income tax exemptions, and supported a 50 percent exemption in real property taxes for persons 65 or older on fixed incomes.

The Farm Bureau called for farmer representation on planning and zoning boards. Both organizations opposed transferring of the Barge Canal to the federal government, and the Grangers opposed the construction of an inland water route for sea-going vessels from New York City into the St. Lawrence Seaway.

In the interests of highway safety, both recommended the use of the slow-moving vehicle sign, and Grangers called for the gradual establishment of speed limits up to 60 miles per hour, and opposed the use of road taxes for anything except highway trust funds on the Interstate system.

More Research

Resolutions to amend the laws regulating the sale and labeling of eggs were opposed; the Farm Bureau called for no change in egg weight standards, and that poultry research be continued. Grangers asked that poultrymen be included in the ASCS Livestock and Feed Grains Program.

Grangers reaffirmed their stand in favor of the two-price plan for milk, while Farm Bureau delegates vigorously opposed the Class I base plan.

The Grangers opposed resolutions calling for changes in the present Workmen's Compensation law, and disapproved a state bureau to handle auto accident cases. Farm Bureau delegates opposed the extension of minimum wages and unemployment insurance to agriculture, but urged that farmers voluntarily cover their workers and protect themselves with Workmen's Compensation insurance or adequate medical and liability insurance.

The Farm Bureau called for adequate technical assistance to area water resource planning committees in connection with the Pure Waters program, and encouraged county Farm Bureaus to study water problems, including pollution. Grangers supported the pure waters program, opposed tapping the Finger Lakes as a source of water for New York City, and urged reorganization of the Temporary State Commission on

Water Resources.

In other resolutions, the Farm Bureau voted as follows:

Recommended that weighted and/or fractional voting be used in the rural areas so that local legislative bodies may have a fair voice even though their voting powers be impaired by the "one man one vote" mandate; also that the New York Legislature memorialize the U. S. Congress to call a

constitutional convention to consider a constitutional amendment whereby one house of a bicameral state legislature may be apportioned on factors other than population.

Also recommended was a farmer-financed record and management service within the Farm Bureau; that a watch be kept for abuses of the tax-exempt privilege; that provision be found whereby trucks used only seasonally be registered for one-half year rate.

A thorough investigation of the public welfare program was called for in New York State; continuation of the golden nematode program; lotteries for state funds were frowned upon.

Grangers vigorously opposed further expansion of the government's low rent and housing program; called for abolishment of Daylight Saving Time; reaffirmed its stand for a legal age of 21 for the purchase of intoxicating beverages; stood for the law permitting young people 12 to 14 years of age to pick fruit, berries and vegetables on farms when school is not in session.

Also recommended by Grangers was liability of parents for wilful acts of minors, with no dollar limitation.

Both organizations called for a clarification of agricultural exemptions in connection with the State's sales tax.

Your HOFFMAN SEED MAN Is a Specialist in BETTER PAYING CROPS



He knows local growing conditions and crops.

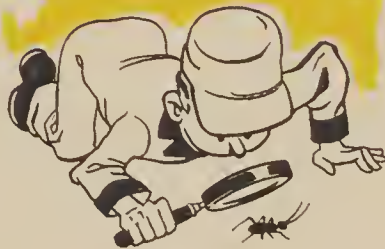
Most Hoffman Seed Men are, first of all, practical farmers. Their "know-how", gained in or near the counties they serve, gives them first-hand knowledge of soils and local growing conditions. As representatives for Hoffman Farm Seeds and Funk's G-Hybrid Corn, they visit from farm to farm . . . get a close look at how various varieties are doing under local conditions.



He's almost a "walking library" of information.

Your Hoffman Seed Man carries with him an unusual "library" of crop information to help him in tailoring a seed program to meet your exact needs. One of these is the well-known Hoffman "green book" that contains detailed information on planting and managing everything from small grains to forage and pasture grasses. Another manual contains similar information on Funk's G-Hybrids.

He's up-to-date on new research.



Your Hoffman Seed Man is kept in close touch with research on new varieties . . . and on weed, insect and disease problems. His aim is to help you get the greatest return from every acre. To accomplish that task he carries details on fertilization, planting and crop management.



His goal is to help raise better paying crops.

Helping you to get a bigger return is only part of the job. Your Hoffman Seed Man specializes in the kind of service that only begins with the order. He'll line up seed delivery to meet your schedules and local conditions . . . bring you new ideas on management and planting.

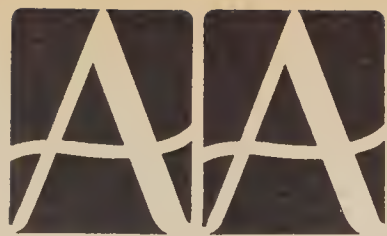
Look to your Hoffman Seed Man for the information that will help you to harvest better paying crops. Drop us a line for the name and address of the one nearest you.

A. H. HOFFMAN SEEDS, INC. • Landisville, Pa.
Located in the Heart of Lancaster County

Hoffman FARM SEEDS

ALFALFA • CLOVER • OATS • HAY • PASTURE • FUNK'S G-HYBRID CORN





FARM DOLLAR GUIDE

OUTLOOK FOR 1966. Farm income will be higher than 1965. Including the expected larger government payments, predicted gross farm income will exceed \$45 billion, compared to \$44½ billion in 1965. Expenses will be up, but are expected to rise less than gross income.

Net income of dairymen up slightly. 1966 U.S. milk production is forecast at about 126 billion pounds, compared to 125.5 billion in 1965, to be produced by 3% fewer dairy cows on around 9% fewer farms.

Turkey and broiler production likely to be higher, which may cause lower prices. Egg prices at beginning of year may average 5 cents a dozen above year ago. Number of egg-type chicks hatched will have big effect on fall egg prices. In 1965, U.S. broiler production increased 7% and turkeys 6%, but USDA says average prices were a bit higher. Since 1955, broiler prices have dropped 31%, turkey prices 27%, while broiler production increased 140% and turkey production over 70%.

Vegetables. Supplies of canned vegetables are about same as a year ago, but stocks of frozen are moderately higher. Supply of potatoes sharply above last year, but Maine's fall crop is down 9%. Since 1956, the increase in processed potatoes is 168%; one-third of potatoes produced go to processing.

HOG FARROWINGS have been lower throughout 1965 than a year earlier, but the decline is narrowing. Farrowings were down 10% (from a year ago) during June-August, but are expected to be down only 5% during September-November. Moreover, producers in the ten Corn Belt states report intentions to have the same number of sows farrow during December-February as they did a year earlier.

ONE OF DIFFICULTIES of increasing yields of corn for grain by planting more stalks per acre is the tendency toward more barren stalks. In a Wisconsin test starting with 16,000 plants per acre, the number of stalks without ears increased 3% on the average for each increase of 4,000 plants per acre. Irrigation and heavy use of fertilizer decreased the percent of barren stalks.

PROFESSOR PHIL MINGES of Cornell says: "On many mineral soils with pH of 5.5 or lower, a grower very likely will get better crops and more efficient production by spending half of his expected fertilizer outlay on lime and half on fertilizer, than by ignoring the lime and doubling the fertilizer.

POULTRYMEN in the six New England states can obtain the latest New England College Conference Poultry Rations from county agricultural agents.

BULLS MAY PROVIDE more meat in future because of their greater feeding efficiency as compared to steers. Besides gaining faster per pounds of feed, bulls have only half as much fat trim as steers. Europe uses thousands of tons of bull beef; except in France and England bull beef is as common as steer beef in U.S.

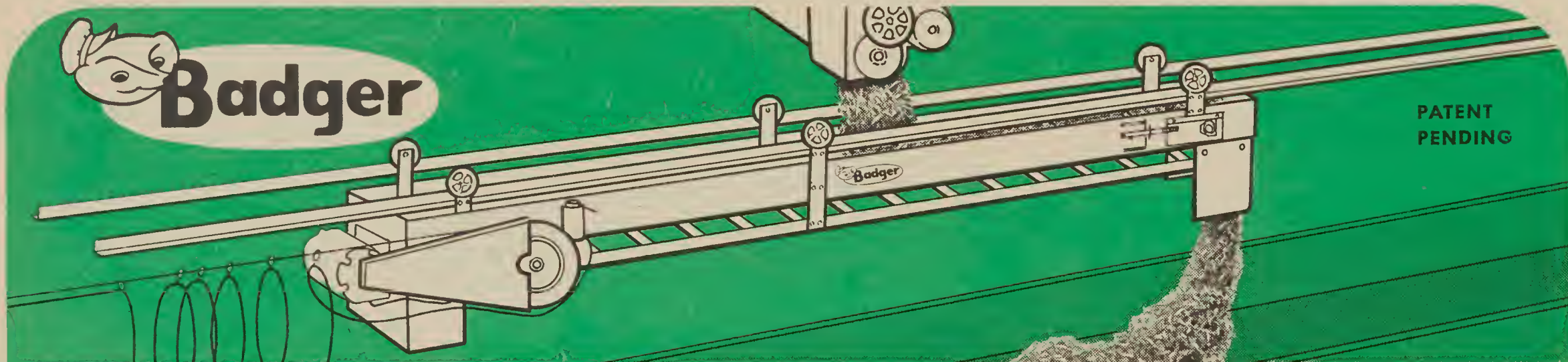
Disadvantages: beef graders label male uncastrated animals as "bulls" regardless of age or carcass quality, causing price dockage up to \$4 per cwt ... offsetting feeding advantage. Bull meat has less marbling, and is darker-colored than steer beef; some buyers don't want it.

Idea has enormous possibilities, but be sure of market before hitching your wagon to a bull!

DELAYING MILKING too long after the cow is stimulated to "let down" her milk tends to "dry her off," and results in lower production. The "let down" period lasts from 5 to 10 minutes, varying with individual cows. It might pay to check the time lag between washing udder and applying teat cups in your herd.

WISCONSIN breeds the largest number of dairy cows artificially, with New York second. But on the basis of the percent of dairy cows bred artificially, Pennsylvania leads with 64.1 percent. Connecticut is second with 60.3 percent, Maine third with 59.4 percent, Wisconsin fourth with 58.5 percent, and Massachusetts fifth with 57.8 percent.

YOU DON'T HAVE TO wait a year to find out what a cow will produce. Feed her adequately beginning two weeks before freshening and she will usually reach peak production some time within three weeks of freshening. For example, if a Holstein cow "peaks" at 65 pounds a day, she will produce close to 15,000 pounds of milk in 305 days, on twice-a-day milking. Whatever her peak production, her yearly production can be predicted with surprising accuracy.



NEW! Self-Propelled Bunk Feeder!

First big new bunk feeding idea since the auger!



The new Badger Self-Propelled delivers any quantity of any feed evenly over the whole length of your bunk. It doubles delivery capacity, speeds feeding.

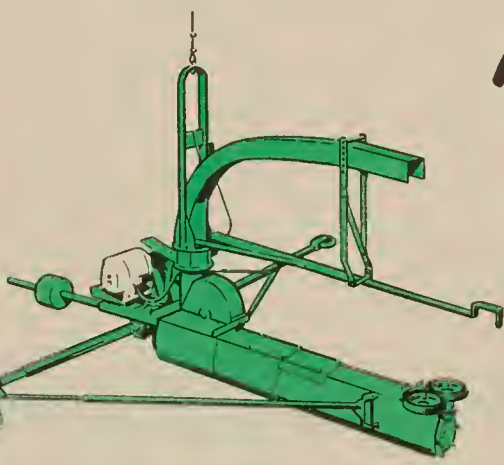
In action, the new Badger Self-Propelled is simplicity itself: It simply propels itself inside its chain like a crawler tractor, first to one end of the bunk, then the other. Feed is gently and uniformly delivered off the leading end of the self-propelled feeder as it proceeds in each direction.

Initial cost is low. Feeding action of long-proven double-chain-and-flight unit is dependable. Geared-down operating speed means virtually no wear.

Don't install any bunk feeder until you've seen this new Badger Self-Propelled.

NEW...better than ever!

Badger is the world's largest-selling Silo Unloader. 1966 model has key new features. Ask your Badger dealer about them.



Badger
Dealerships
Available

BUY THIS BRAND-NEW BADGER. GET ALL THESE BONUSES:

Needs only 1/10 the power used by most bunk feeders. A ½ or ¾ hp motor does job in 150-foot bunk. Can operate off 115-volt circuit.

Installation is easy. Two-way-traveling conveyor is only half as long as bunk. Rides on track suspended from cross members, with no obstructions in bunk.

Completely eliminates feed separation. Feed is gently conveyed, giving no chance for fine or heavy particles to separate.

Really safe. All moving parts are high

above bunk, out of reach of cattle.

Handles any material. Silage, grain, haylage, green chop, chopped hay. Can be fed individually or in combination, in single or multiple lots.

Inside or outside. For use inside a stallion or other barn, as well as on outside bunks. Adapts to any bunk or manger setup.

Installed by Badger Materials Handling Specialists. Your Badger dealer will handle all details of designing, installing, servicing.

FINANCING AVAILABLE

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Please send me literature on the following:

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| <input type="checkbox"/> Bunk Feeders | <input type="checkbox"/> Silage Distributors | <input type="checkbox"/> Forage Blowers |
| <input type="checkbox"/> Full Color "Automatic Feeding Systems" book | <input type="checkbox"/> Badger Dealership | |

Name _____ Student ☐

Address _____

Phone _____

(Continued from page 12)

higher permits more fuel to enter. So, a special high-lift cam can be installed to increase horsepower output.

Precautions — You may well ask if this process of obtaining more power from your engine will make it "temperamental" and short-lived. There is no danger of this if the job is done properly. One of the reasons for being able to raise the compression ratio is the steadily-increasing octane rating of gasoline. With the increased octane rating, the C.R. can be increased without producing detonation or "knocking." Regular gasoline now available has a higher octane rating than premium-grade gasoline of a few years ago.

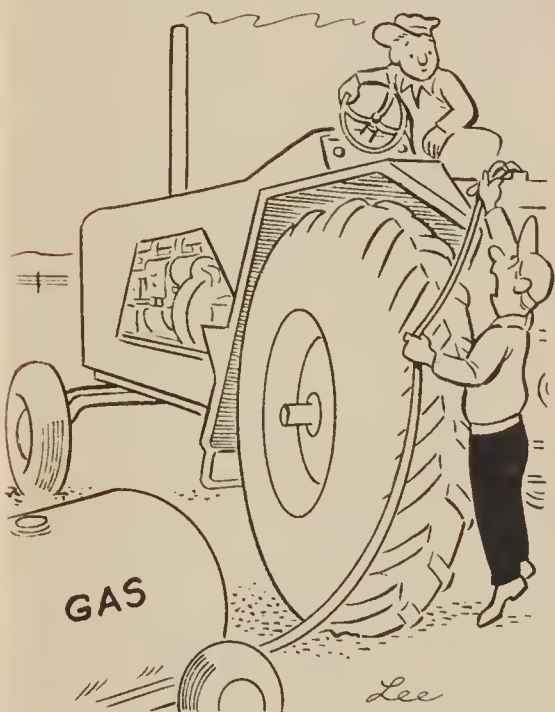
The safest method is to consult your dealer about the advisability and availability of the various power packs for your tractor. In some cases, the original manufacturer may supply power-increasing kits for earlier model tractors. There are also several reputable suppliers of engine parts who have kits available.

Cooling Load

The increased power output will increase the load on the cooling system. This is one of the limiting factors on the amount that power output can be increased. This makes it very important that you keep the cooling system in first class condition to prevent overheating and resulting severe damage to the engine. The proper amount and correct type of crankcase oil also becomes very important when the power is increased.

What about cost of conversion kits? This will vary somewhat depending upon the type kit and the extent of the alternations. For instance, the oversize piston and thin replacement sleeve arrangement will cost approximately \$75 to \$100 over the price of a regular engine overhaul job. For this, you can normally expect to receive a seven to ten horsepower increase in engine output.

Your dealer will probably be able to refer you to other farmers in your area who have had conversion kits installed in tractors similar to yours. A visit with two or three of the owners will give you additional information on which to base your decision.



"Shut it off, Mac. Your're gaining on me."

American Agriculturist, January, 1966

WAYNE RESEARCH LEADS THE WAY TO HELP YOU GET:

An Extra Ton of Milk and \$50 More Profit



ALLIED MILLS, INC.,

Builders of Tomorrow's Feeds—Today!

Executive Offices: Chicago, Illinois • Mills at Guntersville, Alabama • Troy, Alabama • Gainesville, Georgia • East St. Louis, Illinois • Peoria, Illinois • Fort Wayne, Indiana • Iowa City, Iowa • Mason City, Iowa • Omaha, Nebraska • Buffalo, New York • Everson, Pennsylvania • Memphis, Tennessee • Fort Worth, Texas • Portsmouth, Virginia • Janesville, Wisconsin

... from every cow in your herd! Dairymen all across the country are enjoying this kind of *extra production and profit*, thanks to the Wayne Concept of *Challenge Feeding*. What is it?

Simply a method—developed and thoroughly proven by Wayne Research—that nutritionally challenges every cow to give her greatest production, and leads her to maximum peak production, with more follow through after the peak.

Here's how it is working for dairymen in state after state:

Virginia: Increase in one year—2,587 lbs. of milk and 84 lbs. of fat per cow

Wisconsin: Increase in one year—1,952 lbs. of milk and 49 lbs. fat per cow. Return over feed cost upped \$50 per cow to \$376

Illinois: Increase in one year—2,812 lbs. milk and 111 lbs. fat per cow. Only 1,412 lbs. more Milking Ration needed. Income over feed cost increased from \$300 yearly to \$369 per cow

Iowa: Increase in one year—1,440 lbs. milk and 56 lbs. of fat per cow. Feed cost per cwt. of milk was only \$1.40

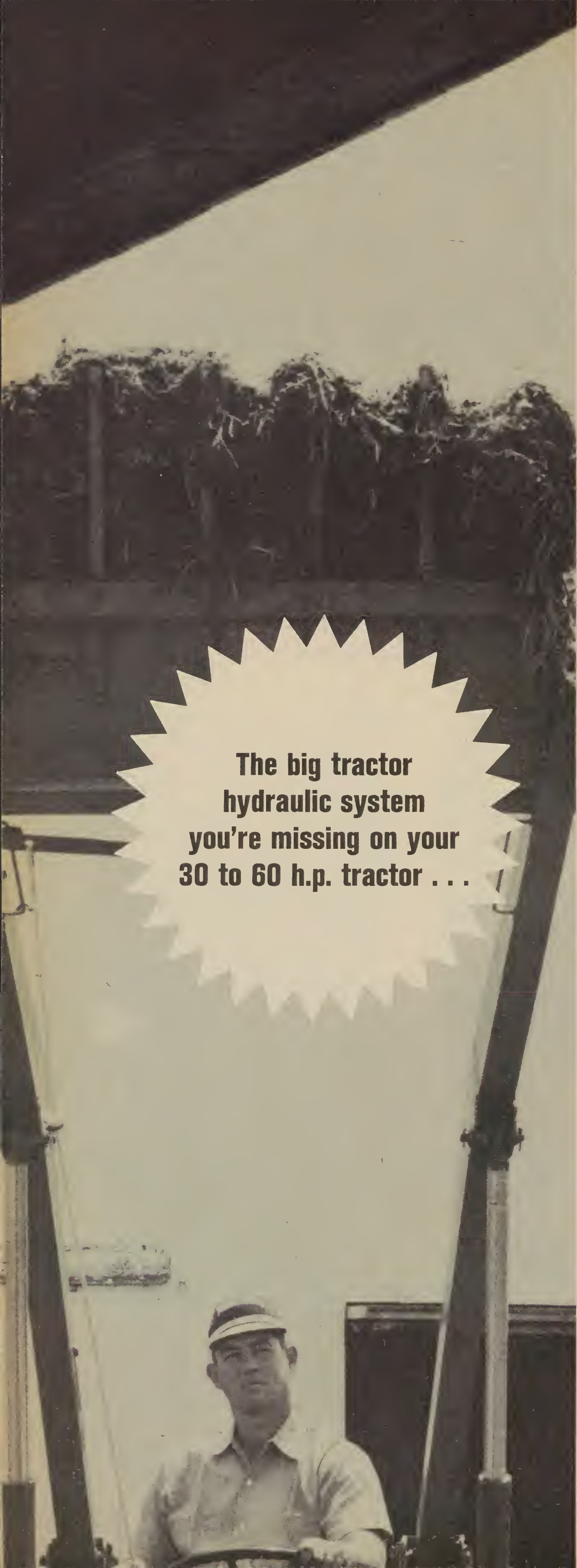
Wisconsin: Increase in one year—3,384 lbs. more milk and 112 lbs. more fat

Texas: In one month, in 80 cow herd, daily production per cow increased 6.4 lbs.

New York: Increase in one year—70 cow herd, 2,057 lbs. milk and 75 lbs. fat per cow. Return over feed cost \$321—an increase of \$75 per cow

ASK YOUR WAYNE FEED DEALER...

to explain the new *Wayne Concept of Challenge Feeding* and to help you choose a balanced Milking Ration—Wayne Supplements, new Test Cow, High Flow or Sugarine—that will best fit in with your local requirements. Follow his Wayne recommendations with confidence.



**The big tractor
hydraulic system
you're missing on your
30 to 60 h.p. tractor . . .**

**. . . is the exclusive
hydraulic system of
a totally new
John Deere 53 h.p. "2020"
or 38 h.p. "1020"**

These two new tractors in The Long Green Line introduce big-tractor hydraulics in the 30 to 60 h.p. range . . . Power-on-Demand through an exclusive closed-center hydraulic system—the system field-proved and farmer-approved on higher-horsepower John Deere Tractors.

There's more lift power—The "1020" will hoist a half-ton bucket load smartly and smoothly; the "2020" a full ton load. Both "1020's" and "2020's" will easily high-lift big integral tools such as the 4-16's of the new F45 Plow.

There's better "down" control—Through one or two double-acting cylinders, you have precision-controlled down-pressure for front-mounted cultivator operation (yes, both "1020" and "2020" take front cultivators—2- and 4-row). There's better "down" control over hitch tools. Set hitch response for "Depth" control . . . set implement at running depth . . . and it'll hold right there through thick and thin—perfect for hitch-mounted cultivators. There's flexible down-pressure control, too—"floating" action for loader, blade, and planter.

You'll make steadier "forward" progress—using selective hitch response of "Load" or "Load-and-Depth," aided by lower-link-draft sensing. In "L" or "L-D" setting, the realistic signal relayed by draft links instantly triggers the Power-on-Demand system to make the exact depth adjustment required—*automatically*.

You'll maneuver effortlessly, accurately—Power steering a manure loader about swampy feedlots . . . dodging with a cultivator in row crops . . . or holding a true course at road speeds. With exclusive hydraulic brakes—standard on new "1020's" and "2020's"—you'll cut cycle time on manure loading, you'll cut headland turns sharply, and you'll brake without "swerve" going downhill ahead of a loaded haywagon.

That's a mighty productive package of hydraulic benefits . . . but it's only a fraction of the "goods" new "1020-2020" Tractors deliver. There's an 8-speed transmission (standard) . . . a "live" dual-speed rear PTO plus exclusive 1,000 rpm midpoint PTO . . . an armchair-comfortable seat . . . the list is as long as your requirements. Got some work you'd like to test a "1020" or "2020" against? Your John Deere dealer volunteers the tractor for the test . . . together with a convenient Credit Plan that's as easy to take as the tractor.

JOHN DEERE

Moline, Illinois



HEAT & FARM BETTER ELECTRICALLY



ELECTRICALLY HEATED LIVESTOCK WATERER

Healthy stock needs lots of fresh water. Be sure of your supply—with an automatically regulated and heated electric stock waterer.



INFRARED SPACE HEATING

Instant comfort in the milking parlor for cattle and operator—an only when parlor is in use.

PUMP HOUSE HEATING

Plenty of water—an absolute necessity for the modern farm. Assure your supply with a dependable, automatic electric pump heater.



HEATING CABLE AND TAPE

Prevent icing and freezing with automatic electric heating cable and tape.

For all applications of farming better electrically, call your local Farm Representative.



Power's out

(Continued from page 4)

load) to thereby maintain the 60 cycles and the proper voltage.

Instrument dials for voltage, amperage, and cycles are desirable to show what is going on. Lower-priced units often do not provide all of these dials.

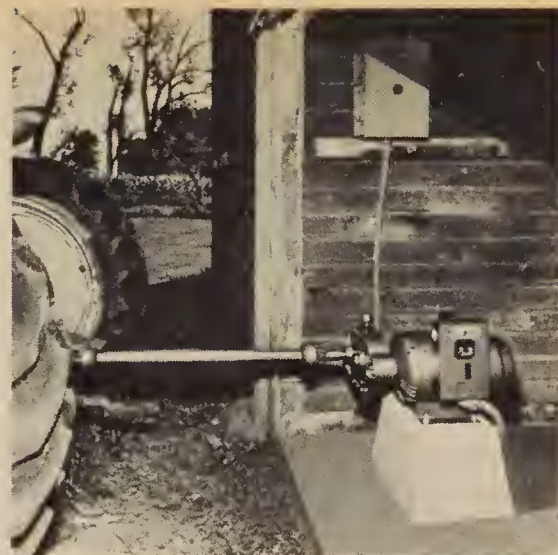
Mounted Generators

Several manufacturers sell generators that may be mounted on the automobile, tractor, or truck engine and powered by belt to an extra pulley mounted on the fan, generator, or water pump. These, powered in sizes from 1000 to 2500 watts, are relatively common on fire trucks and some contractor trucks. Be very sure that any unit you may be considering is A.C., 60 cycles, and of sufficient power, because many of these units are D.C. or A.C. with wattage capacity dependent upon high engine speeds to develop the required number of cycles. Such units will not successfully operate the usual type of permanently-mounted motors.

Attachment Facilities

Electric utility companies require that standby generators used on equipment that is normally supplied with power from the "high-line" must have the generator electrically connected through a double-pole, double-throw switch. This switch can be attached (1) at the service entrance; (2) on an entire circuit or building; or (3) at one or more specified motors or appliances. If a connection is made in any other way, there is great danger of shock to linemen who may be repairing power lines.

The double-pole, double-throw switch must be of ample size to



On most farms, a pto-operated generator offers several advantages.

handle the power required; thus, if the service entrance is 200 amperes, the double-pole, double-throw switch must also be of this size. Where many different motors or lights must be powered by a standby generator, an installation at the entrance is desirable.

For large farms where the standby generator would be required mostly at a dairy barn or poultry house, the special switch is preferred at the building entrance.

For rural or suburban homes, where the furnace or water pump are the two most-needed pieces of electrical equipment, a double-pole, double-throw switch at the equipment may be the best arrangement. For convenience in connecting to the generator, a motor base outlet may be built in as part of the switch box. This motor base will take one end of the extension cord conducting power from the portable generator.

Proper Size

You must do some planning in order to determine the minimum-sized generator required for your particular situation. Part of the problem is to understand the characteristics of the generator and the

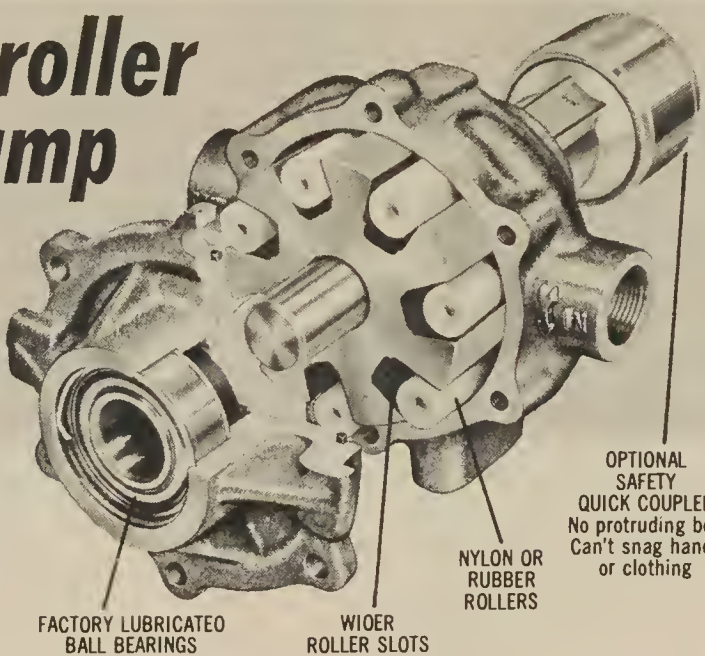
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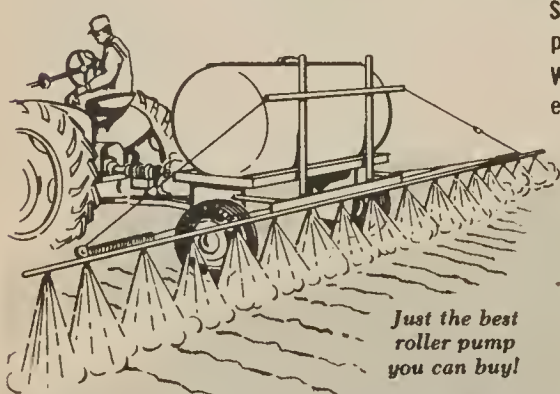
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CHALLENGER Hybrid Cucumber

Here's a step-by-step procedure for figuring the size of standby generator needed:

(1) Group together that equipment which must be operated at the same time.

(2) Feeding dairy cattle may require:

(a) Silo unloader	6000 watts (start)	2000 watts (operate)
(b) Water pump	1800 watts (start)	600 watts (operate)
(c) Hay conveyor	2000 watts (start)	700 watts (operate)
(d) Lights	600 watts (start)	600 watts (operate)

Even here, the lights, hay conveyor, and water pump need not operate at the same time as the silo unloader — thus the silo unloader determines the size (so far).

(3) Milking operation:

(a) Milking machine	3000 watts (start)	1000 watts (operate)
(b) Milk pump	2100 watts (start)	700 watts (operate)
(c) Lights	600 watts (start)	600 watts (operate)

(4) Cleaning operation:

(a) Gutter cleaner	6000 watts (start)	2000 watts (operate)
--------------------	--------------------	----------------------

(5) Additional needs — no definite timing required

(a) Water pump	1750 watts (start)	600 watts (operate)
(b) Milk cooler	1800 watts (start)	600 watts (operate)
(c) Water heater	1200 watts (start)	1200 watts (operate)
(d) Fans	2400 watts (start)	1200 watts (operate)

From this listing we note that the largest motors are on the gutter cleaner and silo unloader. By selecting a 7500 watt (7.5 K.W.) generator, we would be assured of starting these two units (separately) and then other smaller units can be switched on after either one of these has been started. By hand-controlling normally automatic equipment such as the water pump, milk cooler, water heater, and fans, you will be assured that these units are not energized when you wish to start one of the larger motors. This 7.5 K.W. unit would also partially operate the family kitchen during the off periods of farm use. While your kinds and sizes of equipment will probably not correspond to this list, by thinking through your needs in the manner indicated you can determine a minimum-sized generator that will be adequate for an emergency situation.

electrical requirements of motors. Motors demand two to three times the energy to start as compared to that required while running under load. Also, most generators have little overload capacity. For every 1000 watts (1 K.W.) of generating capacity, the gasoline engine powering it must have two (plus) horsepower . . . at the rated speed.

By knowing these facts you can secure full use of the generator by starting the larger motors first, then switching on smaller units — motors, light or heat — afterward. Another most important point to remember is that all of your electrical equipment need not be operated at the same time; by wise planning you can stagger your electrical use to fit a relatively small generator (in terms of your total connected load).

Make plans and purchase equipment now for possible emergency use later. A partial list of manufacturers of equipment follows. A U. S. Department of Agriculture leaflet, No. 480 "Standby Electric Power Equipment for the Farm" (5 cents from Superintendent of Documents, Washington 25, D.C.) is helpful. Your State College of Agriculture may have a publication such as Cornell Extension Bulletin 879 "Emergency Equipment for Electric Power

Failure," available at your county agricultural agent's office.

Partial List of Manufacturers

- Onan, 2515 University Avenue, Minneapolis, Minn. 55914
- Winpower Manufacturing Co., Newton, Ohio 50208
- Fairbanks-Morse, 701 Lawton Ave., Beloit, Wisc.
- Hobart Motor Generator Corp., Hobart Square, Troy, Ohio 45375
- Katolight Corp. Mankato, Minn.
- Windcharger Corp., P. O. Box 2009, Sioux City, Iowa 51102
- United States Motor Corp., Oshkosh, Wisconsin
- Electric Machine Co., (Distributor), 1777 Henke Bldg., 430 W. Juneau Ave., Milwaukee, Wisc. 53203

Stanley Bothwell of East Genoa, New York, has this belt-driven generator ready for emergencies.



Dates to Remember

January 3-6 - Garden Living Industries of the Eastern United States Convention and Trade Exposition, The Concord Hotel, Kiamesha Lake, N.Y.

January 10-14 - Pennsylvania 50th Farm Show, Farm Show Building, Harrisburg, Pa.

January 12 - 134th Annual Meeting of New York State Agricultural Society, DeWitt Clinton Hotel, Albany, N.Y.

January 18-20 - National Council Farmer Cooperatives, Washington, D.C.

January 18-20 - Combined meeting New York State Horticultural Society, Empire State Potato Club, and New York State Vegetable Growers' Association, Rochester, N.Y.

January 19-20 - Northeastern Turkey Producers Conference, University of Massachusetts, Concord.

January 23-25 - 27th Annual New England Farm Electrification Institute, University of Connecticut, Storrs.

January 24-26 - 51st Annual Meeting, National Dairy Council, Statler Hilton Hotel, Washington, D.C.

January 24-28 - 15th Annual Beef Cattlemen's Short Course, Cornell University, Ithaca, N.Y.

January 24-29 - New Jersey Farmers Week and State Agricultural Convention, Health Agricultural Building, Trenton, N.J.

January 25-27 - Vermont Farm Show, Municipal Auditorium, Barre, Vermont.

January 25-27 - New York State Horticultural Society Meeting, Kingston, N.Y.

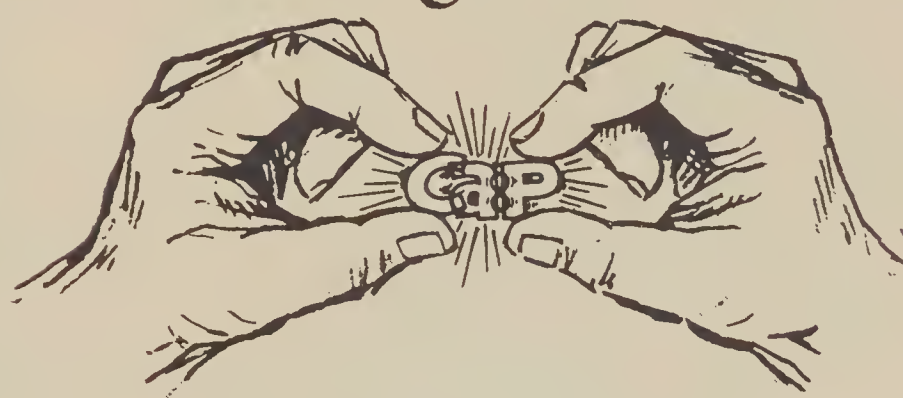
January 26-27 - Dairy Farmer Seminar, sponsored by the Extension Service, University of Massachusetts and the American Dairy Association of Massachusetts.

An announcement from Dr. Lew S. Mix, vice-president and director of research and development for Beacon Feeds . . .



Lew S. Mix

Beacon now offers dairymen a new concept in dairy nutrition to promote
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production) and are helpful in keeping calcium blood serum values above the level where milk fever occurs. Higher available phosphorus also means better conversion of carotene to vitamin A.

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These changes bring dairymen better nutrition for their herds, will improve the utilization of many nutrients and thus promote better herd health and productivity.



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BLUEPRINT FOR BLUE RIBBONS

by S. W. Sabin

4-H Livestock Specialist, Cornell University

Typical of Tioga County's 4-H'ers with winning ways is Keith Fairlee and his Reserve Grand Champion 4-H Hog at the 1965 Caledonia show and sale.



TIOGA COUNTY, in New York's Southern Tier, has come in a few years from almost no livestock projects in 4-H to a position at the top, especially with swine. Tioga County is now "the county to beat."

It is the story of true cooperative effort, a lot of hard work by some dedicated people, and the belief that quality merchandise has a ready market. Frank Wiles, the young Tioga County 4-H agent,

is a firm believer in 4-H and one of its basic aims, "learning by doing." In order to encourage greater participation in 4-H activity and at the same time provide a new source of income to many of his rural farm and non-farm families, Frank decided to initiate a swine feeding project.

With the assistance of Ellis Pierce, Extension swine specialist at Cornell, meetings were arranged. The whole picture of expected

costs, returns, risks and probabilities of profits was explained. Thirty young people signed up for the project, a truly remarkable number considering the almost complete absence of swine in the county.

Buying Pigs

Frank and Ellis attended a swine sale in Beavertown, Pennsylvania, one of the annual Yorkshire production sales of Reno and Park

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Thomas. Arrangements were made to obtain 66 feeder pigs the following spring from these top-flight breeders.

The enthusiasm and interest on the part of the 4-H'ers more than compensated for their lack of experience. At the 1964 Western New York Livestock Show and Sale at Caledonia, Tioga County 4-H folks made their presence known. In a class of 35 light-weight hogs, they captured 1st, 2nd and 5th place. In the middle-weight class of 11 pigs, 4th place went to this County. Of the 12 hogs shown in the heavy-weight class, Tioga County boys captured 2nd and 3rd.

Looking Ahead

The show and sale was no sooner over than Frank and Ellis were again making plans even bigger and better. The Brooks End Farm and Par Kay Farm of Reno and Park Thomas received another order. But now there was another factor working for Frank and his boys... experience.

The 1965 Caledonia show and sale at the Empire Livestock Market was clearly a Tioga triumph. When placings were in, Tioga County boys had captured 1st, 2nd, 4th light-weight placings; 1st, 2nd and 3rd medium-weight placings; 1st, 2nd and 3rd heavy-weight placings; and Champion and Reserve Champion singles. In the pen classes, they snared 1st in both medium and light-weight pens, and 2nd in the heavy-weight pens.

Of all the swine exhibited by Tioga County 4-H'ers, all but the 1st place light-weight pen were either direct purchases from the Thomas farm, or the offspring of gilts purchased the previous year.

Frank is now more thoroughly convinced than ever that "4-H'ers with a little spizzerinktum (vim, vigor and vitality) and an interest in livestock can have a real educational experience finishing quality pigs."

The success of the Tioga County swine project is a tribute to the wholehearted cooperation received from the Thomas Brothers, to the dedication of Frank Wiles, and to the 4-H'ers themselves who have "learned by doing," and are even now attempting to "make the best better."

News and Views from NEW YORK AND PENNSYLVANIA



Farm Bureau Tires — The New York State Farm Bureau, after a lengthy investigation of its advisability, will sell tires at cost to members. A survey of the membership indicated a high degree of interest, so the organization decided to make the move.

Plans are also underway to launch in 1966 a farm record-keeping service sponsored by the New York State Farm Bureau. This would be designed to help with income tax forms, as well as with figures needed for farm management decisions.

Christmas Tree Library — A national archive and information center at The Pennsylvania State University is believed to be the first of its type. Complete volumes of all national, regional and State periodicals, journals and bulletins published by Christmas tree growers' organizations will be collected at the University. The collection will contain books pertaining to Christmas tree production, marketing, and utilization. The address is National Christmas Tree Library, 110 Forestry Building, University Park, Pa. 16802.

Double Winner — In our November "News & Views" column we reported that Spencer Grange No. 1110, Tioga County, New York, had received a check for \$1,000 in the Community Progress Program sponsored by the National Grange and the Sears-Roebuck Foundation. Now we are happy to report that Spencer Grange took first place among 4,500 Granges . . . and the top prize of \$10,000. Our warmest congratulations on a very fine achievement!

Outstanding Young Farmer — John W. Schwartz, Littlestown, Pennsylvania, was named outstanding young farmer in the State at the annual conference of the Pennsylvania Young Farmers Association.

Unchanged — Most things have changed on the rural scene, but not the spirit of neighborliness. The Keith Hatfield family recently moved from McLean, New York, and purchased a farm on Route 34 near Venice Center, Cayuga County, New York. On the last Sunday in October their house partially burned . . . and the next Sunday the barn burned completely. Arson is believed to be the cause, and a suspect is in custody.

Neighbor Harlan Driscoll provided housing for their cattle; neighbors in the area pitched in to help. Back in McLean, the people held a supper and entertainment event that raised \$1,050 for their former neighbors . . . and lasting friends!

Grape Report — Reports from the Grape Belt of New York and Pennsylvania indicated slow ripening last fall; average crop between eight and twelve tons. A few years ago, three tons to the acre was considered good. Reason for the *American Agriculturist*, January, 1966

increase is attributed to leaving more wood and thus more buds on the vines, plus improved fertilizing practices.

National Star Farmer — Floyd S. Dubbin, Jr., Middlefield, New York, was named 1965 National FFA Star Farmer. Floyd not only farms in partnership with his father, but holds a steady eight-to-five job as a Production Credit specialist in nearby Middlefield.

Floyd got his first calf at the age of six, and by the time he was

a sixth grader he was handling his own shipping contract with the Dairymen's League. Vo-ag study followed three years later, and in his second year in high school he went into partnership with his father. Over a four-year period, the Dubbins have moved their milk average from 7,500 pounds per cow to 13,500 pounds, 106 cows.

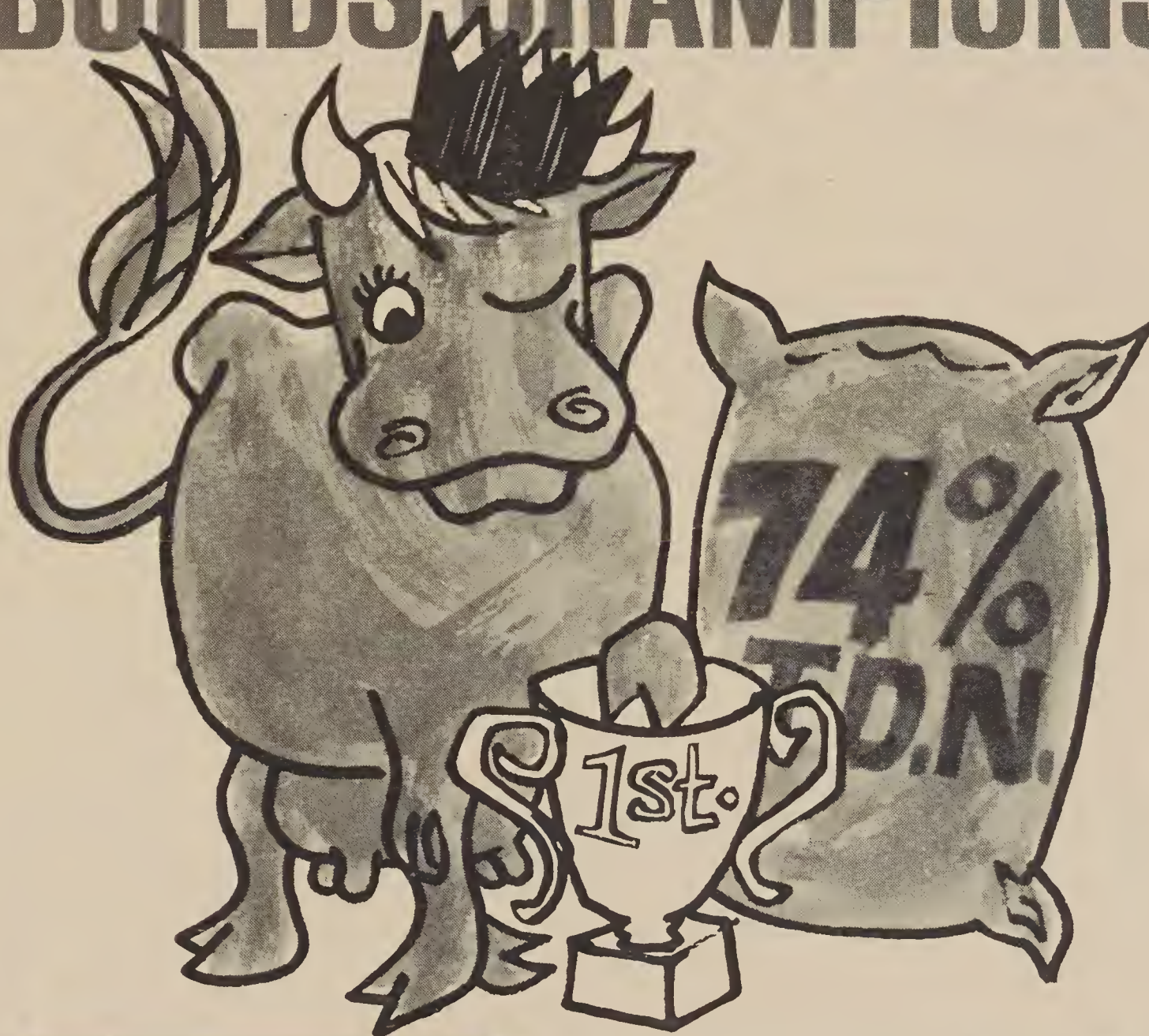
Correspondence Courses — The Pennsylvania State University's correspondence courses in agriculture and home economics have served 200,000 students in 73 years. Started in 1892, students enroll any time, study at their convenience, and return examinations for correction as they choose. Costs are \$1.25 to \$4.25. Write to Box 5000, University Park, Pennsylvania

16802, for a free descriptive bulletin.

Jersey Queen — Arlene Lewis (17), daughter of Mr. and Mrs. Burdett Lewis, Ludlowville, New York, was selected New York State 4-H Jersey Queen for 1965. Arlene started her 4-H work seven years ago, and has a herd of three cows and one calf. She has sold four animals in preparation for financing her college education.

Honors — Grand championship honors went to The Pennsylvania State University recently when the intercollegiate team won the 16th annual meat judging contest. In addition to the team championship, Penn State also had the high individual in the contest, James R. Males, a junior in animal science.

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DAIRY BASE PLAN

by Hugh Cosline

NEW FEDERAL legislation which permits (but does not require) setting individual base quotas for Class I milk is extremely important to dairymen.

An amendment to milk marketing orders will be required to do this in any market, including the New York-New Jersey area (Federal Order 2). To become effective, the amendment must be approved by two-thirds of dairymen voting as individuals. Furthermore, if an amendment is adopted and later changed, the change or changes must also be approved by individual voting, and by a two-thirds majority.

If the amendment is passed, each dairyman will get a base quota for which he will get a base price. However, he can produce as much milk as he wishes, with milk above the base receiving a much lower price... probably about the price of milk for manufacture.

The new law does not spell out the exact provisions of any amendment. In fact, it raises many questions, and answers few or none. Dairymen, however, can well be thinking about these questions, and studying how various possible requirements would affect them.

Distributing Returns

Before doing this, it is important to understand that the new law makes no provision for higher milk prices. It does make possible a new method of distributing total returns for milk among producers. Obviously, any new method will benefit some producers and hurt others. That's why it's so important for you to study any specific proposal that is eventually made.

We are raising some of the questions that must be answered, but before doing so we talked at length with Professors Leland Spencer and Robert Story of Cornell, milk economists, and wrote numerous letters to such authorities as Elmer Towne, former Vermont Commissioner of Agriculture, Professor C. W. Pierce of the Pennsylvania State University, Professor Stewart Johnson of the University of Connecticut, Kenneth Hood of the American Farm Bureau, Herbert Kling of the New York State Department of Agriculture & Markets, and William Park of the State University at Rutgers, New Jersey. However, we are not saying that all of these men agree with all of the following observations!

Here are some questions to be considered:

What will be the base period on which quotas will be set?

No one knows! Basing a quota on a recent period would favor dairymen who have recently expanded and penalize those who plan to expand but who haven't done it.

Also, there's the question of

whether a base should be on a yearly basis... or by months, perhaps to encourage more uniform production.

Will quotas give each dairyman his supposed share of the fluid market, or will they include some "cushion" to take care of variations in demand?

Probably the sum of all quotas will be large enough to take care of variations. Therefore each dairyman would get a base price for his quota which would be a little below the Class I price.

Will quotas be transferable?

The law permits (but does not require) that quotas be transferable.

If an amendment is proposed including a provision making quotas transferable, how will it be done?

This is another important but unanswered question. At a recent meeting, Administrator Pollard said that his office is equipped to handle the administration of a quota system only if quotas are based on production units (farms) rather than on individual dairymen. This still leaves unanswered the question of who owns the quota.

There has been some assumption that if transferable, quotas may be for sale to dairymen.

This raises important questions:

First: The law specifically states that if quotas are surrendered by dairymen, they shall first be made available to new dairymen and to hardship cases.

If quotas are salable, they will immediately become valuable property, adding to the capitalization of dairy farms, and making it easier for a man to get out of dairying... and more costly for a young man to get established as a milk producer.

If quotas can be purchased, it would seem to favor the growth of large dairies and discourage the smaller ones. Farmers (or corporations) who wanted to expand could well bid up the price of quotas to a point where the small producer would be frozen out.

There seems to be some inclination on the part of the Administration to find a way to transfer quotas without making them a financial asset. How could this be done? Don't ask us!

Incidentally, if the transfer of quotas is made difficult, it may tend to keep some dairymen in business longer than they would otherwise stay.

Who will administer the transfer of quotas?

Perhaps the Administrator's office, perhaps cooperative associations. It remains to be seen.

Is there a danger that adopting quotas in eastern

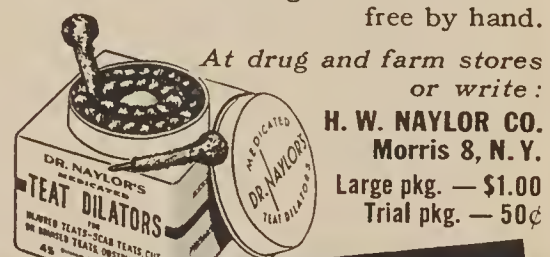
(Continued on page 31)



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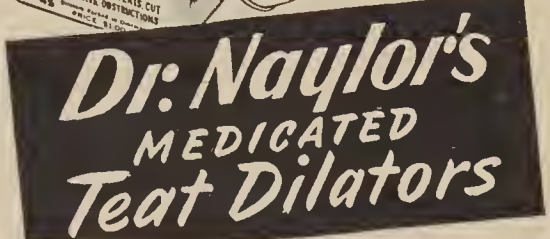
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FREE PHOTO CATALOG!

Base plan (Continued from page 30)

markets would encourage milk from other areas to seek our markets?

This could work either way, depending on the provisions of the amendment. In other words, if nearby markets should tighten up requirements, producers in the New York-New Jersey market might lose present markets for milk not needed for fluid consumption here.

If Order 2 regulations (New York-New Jersey) were made tighter, it might conceivably make it more difficult for areas to the west to sell milk in this market. Some experts claim that the enabling legislation passed by Congress will allow the Secretary of Agriculture to "protect" order areas having a quota system from the influx of outside milk supplies.

Will quotas tend to reduce milk production?

We doubt that they will have much effect. Depending on the exact provisions, older dairymen may find it easier to get out of milk production. Unless costs can be cut, reducing production will generally cut net income.

Quotas may discourage increased production, but on the other hand very efficient dairymen may find it profitable to produce milk for manufacture. However, if they do, and if they can buy quotas, they will want to produce all the Class I milk they can, and are likely to bid up the price of quotas.

How would quotas affect my income right away?

This will vary by farms. First, remember that there is no provision or intent to increase the Class I price. If you continue to produce the same amount of milk, there should be little difference in your gross return. If you cut production, your gross will be less and your net will be lower unless you can cut expenses to the same degree.

How would quotas affect

The Song of the Lazy Farmer

As soon's a new year rolls around, Mirandy Jane begins to hound me 'bout a resolutions list. "Twould be



my business from the long-time view?

This is even more difficult to answer, and raises many new problems: How difficult will it be for new dairymen to get established? How hard will it be to expand? How much will necessary regulations interfere with making my own decisions? Actually, no one can answer your question until a definite amendment is proposed, spelling out the details.

What will happen if an amendment is proposed and turned down by dairymen?

Your guess is as good as ours. Probably there would be no changes in the Order in the near future. This doesn't mean that changes could not be made. There have been changes to meet changing conditions in the past.

One thing dairymen could do is to step up promotion and advertising of milk. Any increase in consumption of fluid milk gives dairymen a better price.

Also, "relief" is with us in a big way, and will continue. Perhaps there is merit in an extended food stamp plan to increase milk consumption.

There seems to be a move in Washington to feed more of the world's hungry. But if exports of food are increased, the place of milk is problematical. Obviously, more calories per dollar can be sent abroad in the form of vegetable products. However, dried milk has been sent overseas in large quantities and might be used as a convenient source of protein.

Incidentally, there seems to be little disposition on the part of the USDA or Order 2 Administrator Pollard to push the idea of quotas. Dr. Pollard points out that a petition for an amendment must come from a producers' group, that hearings will then be held, and then an amendment may be proposed.

Then will come the time for careful study by dairymen. But now is the time to consider the possibilities. As the situation develops, we plan to keep you informed.



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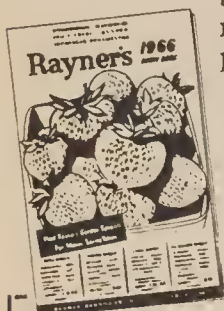
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Herb Hines picks up a whole flat of eggs at a crack (oops! at a time) to put them on grader.

FAMILY POULTRY FARM

HERBERT HINES, Hubbardsville, New York, has 32,000 layers in three buildings . . . 25,000 in cages in one house that includes egg-handling facilities. The egg room crew washes, candles, and packs eggs four days a week, on three-hour shifts each day. Capacity of the washing-grading machine is 35 cases per hour.

Eggs are gathered once a day between 1 and 5 p.m. The cart used for gathering goes directly to the grading room so there is no in-between handling. Except for the egg-grading crew, and one man who gathers eggs four hours each day, Herb and his wife are able to carry the workload themselves. "We tripled total egg production in three years with the same basic labor force," Herb comments.

Floor vs. Cage

He readily admits that he can get higher production per bird with flocks on floors, rather than in cages (25 birds in each 3 x 4-foot cage) . . . and he has proof because two of his three flocks are presently on floors with about three square feet of space for each bird. However, he comments that "Production per man is the profit key today. Cages offer high labor efficiency and we can afford to sacrifice a little on each layer's production in order to get the lower cost per dozen eggs."

Molting

Herb's hens average 13 months of lay, but he recently molted a floor flock for another seven months' run. He started off by depriving them of feed and water for two days. For the next five weeks, they got water plus whole oats and free-choice grit . . . but all lights were left off in the building (which had conventional windows). In the sixth week, the flock went on regular laying mash and went up to a peak of 75 percent production.

All eggs are sold locally, picked up at the farm by peddlers and institutional outlets in nearby cities and communities. Herb wants to stay away from the problems of

delivery, believing that there just isn't enough in it to pay him for time and expense involved.

Manure Handling

Manure in the cage house is cleaned out daily with mechanical pit cleaners, going as a slurry into a tank with added water . . . to be spread on a neighboring dairyman's farm. Hines is planning the construction of a covered tank where manure will be stored between clean-outs at about six-week intervals.

Crumbles are being fed, even though the purchase price is higher than with mash. Herb has found he can feed crumbles faster with his gasoline-powered feed cart, and he finds that his waterers stay cleaner.

Lights in the cage house are 12 feet apart each way. Herb has been using 60-watt, 130-volt bulbs, but plans to go to 120-volt ones . . . 110-volt bulbs just don't last long, but the 130's don't give enough light.

Speaking of voltage, this poultry farm has a 15,000 watt (15 K.W.) auxiliary generator that can keep things operating if high-line power goes out. It's a pto-operated rig that Herb reports requires a wide-open throttle on his Farmall M to operate.

BOSTON EGG PRICING

New Hampshire poultrymen have voted to maintain the court decree governing the pricing of eggs at the Boston market area. Poultry associations in Maine, Vermont, Massachusetts and Rhode Island had voted to petition the Justice Department to vacate the decree, but the poultry association of Connecticut had voted to maintain it.

The Northeastern Poultry Producers Council, in the face of this lack of unanimity among producer groups, decided to hinge its future action on the New Hampshire vote. Inasmuch as the Granite State organization wanted to maintain the decree, NEPPCO has decided to drop the matter.

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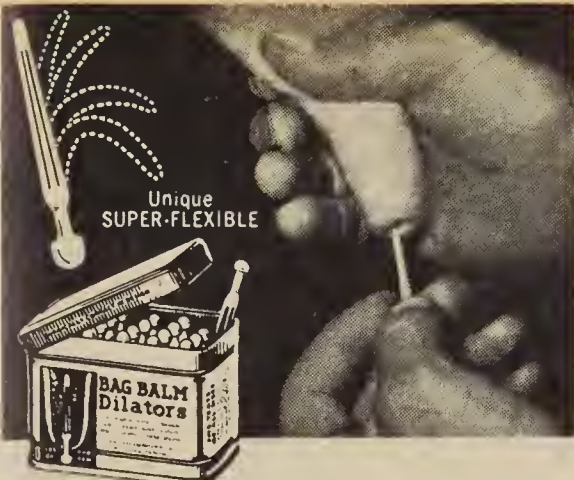
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PHASE FEEDING POULTRY

by Harry Whelden, Jr.*

PHASE FEEDING is not new. What is new is the basic idea of feeding more specifically for varying nutritional requirements.

In practice, a poultryman who was feeding mash-scratch many years ago... and changing the amount of scratch fed in relation to production, season or body weight... was phase feeding. A poultryman feeding a starter ration for a specific age period and then switching to a grower ration is phase feeding. A broiler grower feeding a starter, broiler and finisher in sequence is phase feeding.

It is a known fact that nutritional requirements for growth differ from those for egg production. It is also known that the nutritional requirements of a layer 30 weeks of age and laying 65 percent differ from those of a layer 60 weeks of age and laying 65 percent. The nutritional requirements of layers of the same age, but laying at different rates, differ.

Differences also exist depending upon egg size, body weight, body maintenance, environmental temperature, etc. Phase feeding is an attempt to be more specific by formulating feeds for specific growth and production needs.

When a bird is "overfed" by including more of a nutrient in the feed than the bird requires, the surplus is either stored, usually as fat, or excreted, depending on the nutrients involved. This makes for "waste," and therefore influences feed efficiency.

The object of phase feeding is to reduce this "waste" of extra nutrients by feeding more exactly according to the bird's nutritional needs, thereby improving feed efficiency and lowering costs. In addition, there are indications that egg size may be improved.

An Example

An example of this is the percent protein which can be fed, in relation to the requirement, at different ages or phases of lay. Although it is the amino acid makeup of the protein which determines its value, rather than the percent in a feed, the practical measure of protein in a feed today is by percent. On this basis we must assume that a good-quality protein, or one which contains the essential amino acids, is being used.

Be that as it may, the protein requirements of a layer change through her laying year. She is still growing when she comes into production, and continues to grow while producing more and more eggs. Her protein requirement is relatively high at this time. After she has peaked in production and has reached her mature body weight, her protein requirement begins to decrease.

If a feed containing the same percent protein is fed throughout the laying year, as is true for most flocks today, some protein is being "wasted"... either stored as fat,

or excreted. By feeding the correct amount of protein in relation to need this "waste" is reduced and feed costs are lowered.

To date, protein, because of its higher cost in relation to several other nutrients, has been the most common nutrient changed to meet the bird's changing needs. There are others, such as energy, which can also be changed according to bird needs.

Some Problems

The story so far sounds good. Phase feeding, however, is not without problems. A bird's nutritional needs vary in relation to environmental factors such as temperature, disease situation, and parasites.

For example, a bird with a low level of parasitic infestation may not "need" more nutrients than one clean of infestation. However, parasites and worms need nutrients, and their needs will be satisfied before those of the birds. As a result, a bird with a high level of infestation "needs" more nutrients in order to maintain itself and produce. The same parallel is true in relation to disease, temperature, etc. More carefully-controlled management is required with a phase feeding program.

For poultrymen with more than one age of layers on the farm, phase feeding requires a close check on feed deliveries. Phase feeding is not practical when one mechanical feeder or one bulk bin is used to feed more than one age group. Additional equipment would be necessary, or one age group on the farm is a good practice regardless of feeding program, however.

Probably the greatest problem is the manufacturing of feed. Phase feeding increases the complexity of producing and delivering feed. Several different feeds may be required where only one is being produced for conventional feeding.

For example, four or five feeds (with varying protein) may be desirable from onset of lay to the end of the lay period. In addition, phase feeding will require a high degree of integrity on the part of the feed manufacturers and an understanding on the part of the poultryman of the concept of using feed that will supply the proper level of nutrients.

Solutions to these problems are not without reward, however. Research indicates that phase feeding can mean larger egg size, lower feed cost and a higher income. The poultryman or integrator with his own mill appears to be in the best position to take advantage of phase feeding. It remains to be seen whether the saving for the poultryman justifies large feed companies increasing the number of formula feeds. For the local mill the mixed feed inventory problem does not appear to be as great.



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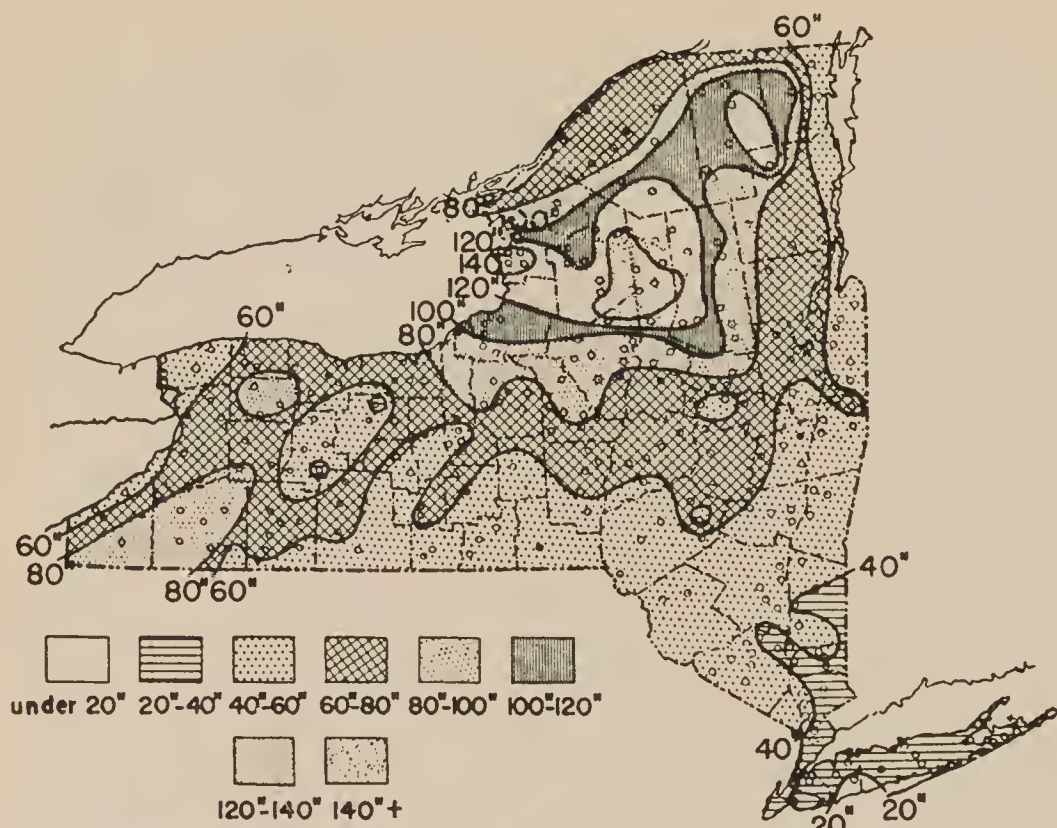
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Doc Mettler Says:

FUTURE FOR DAIRYMEN?

About this time of year everyone is making predictions for the coming year, and talking or writing about what the future holds. Not having access to a computer or a crystal ball, I'm not sure what the future holds for the dairy farmer and his veterinarian. However, I have heard and read of some predictions that give a little food for thought.

Last October a meeting of feedmen, nutritionists and veterinarians here in the Northeast had much to say about the twenty thousand pound herd. This is a fine-sounding figure, and already some herds are approaching it. To make a twenty thousand per cow average might seem impractical and not profitable today, but I do feel that before many years go by the 20,000 pound mark will be as common as the 15,000 pound mark is today.

I like to think of these high herd averages and high production per man more than I do about huge cow "factories" where thousands of cows are all controlled by computers and fed by electronics. I like cows too much, and enjoy working for the men who like cows too much, to be fascinated by such setups. As an old "mossback farmer" often says: "The more the cows the more the splatter" . . . and I don't like to work in the splatter.

The Veterinarian's Role

To get back to this 20,000 pound herd of yours, where will your veterinarian fit into the picture? First, to make this average you will probably need the aid of a nutritionist to figure out how much of what to feed and when in order to make a profit, and to eliminate acetoneuria and milk fever. This will also, we hope, eliminate indigestion and "off feed" problems. All your cows will have magnets in them to eliminate most of the hardware trouble. Your heifers will be vaccinated against the various viruses and other diseases as yearlings to eliminate much of your disease problems. A professional foot trimmer will come two or more times a year and trim feet, where selective breeding has not eliminated long poor feet.

What does this leave for your veterinarian? Bovine obstetrics and gynecology. There still is no foreseeable easy answer to either breeding or mastitis problems.

Of course, sterility and mastitis are best treated before they happen. This is best handled (and I believe will still be) on a routine schedule of preventive veterinary medicine. No cow can make peak production while carrying mastitis organisms in her udder. A good mastitis-control program to eliminate streptococcus agalactiae would be the first step. New York, Massachusetts, and Connecticut have such programs available through local veterinarians. Mastitis caused by other organisms must be eliminated by better milk-

ing procedure and prevention of injuries.

Milking machines still in use in many dairy barns today were installed to milk forty pound per day cows; machines are installed today to milk fifty or sixty pounds of milk out of a cow in five minutes! If yours can't do it, and you or your milkers aren't able to do it with a proper machine, you'll never make a twenty thousand-pound average.

The day of one man running four units in a conventional barn are gone; I know of milkers who can milk fifty cows with two units in one hundred minutes. These men are specialists, they deserve good pay, and proper equipment and good cows to work with. Some of them can hardly read or write, but when they milk cows they never change their routine, and nothing interferes with what they are doing. If you have a man like this working for you, take good care of him.

The twenty thousand pound herd can't have many cows in it that don't breed back and calve every year. The secrets of any sterility program are observation, routine, and simple record-keeping. The owner or herdsman must set up a schedule with his veterinarian for monthly . . . or sometimes during the year even weekly examinations. Cows should be checked four to six weeks after calving, and checked for pregnancy as soon after thirty days as practical. All abnormal discharges, irregular heats, or lack of heats, should be recorded. The record book should be simple and, most important, should be in the barn where the hired man, veterinarian, inseminator, and any other person concerned can check it when necessary. A barn blackboard with chalk available is almost a necessity as a heat-expectancy chart.

Beef Her

The cow or cow family that "milks like the dickens but are slow breeders" should be eliminated in a herd expected to average 20,000 pounds per cow. I see more money spent foolishly in trying to breed first calf heifers for a second calving after making sixteen or eighteen thousand pounds of milk than I care to think about. If a heifer doesn't catch, why shouldn't she make a terrific first calf record? It sounds heartless, but if you intend to make money, beef her and pay more attention to the heifer that made less milk and bred right back at sixty days.

No matter if your herd is making nine thousand a year per cow or on the verge of hitting twenty thousand, it is the profit or loss column, plus the personal satisfaction of making a living at a business which, although difficult, is enjoyable, that makes the difference at the end of the year. I wish for all of you success and pleasure in your undertakings in 1966.

American Agriculturist, January, 1966

4-H NATIONAL WINNERS

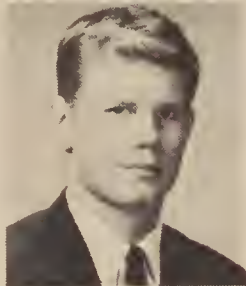
Here are the young 4-H people from New York, Pennsylvania and New Jersey who received national awards at the recent 4-H Club Congress at Chicago. Donors of these awards included: Coats and Clark, Inc., Eli Lilly and Company, the S & H Foundation, the Sears-Roebuck Foundation, Ralston Purina, Allis-Chalmers Manufacturing Company, Wilson &

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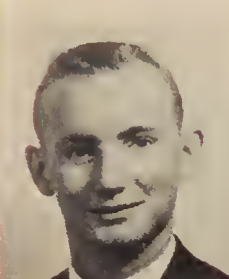
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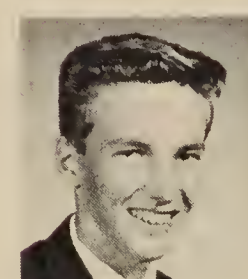
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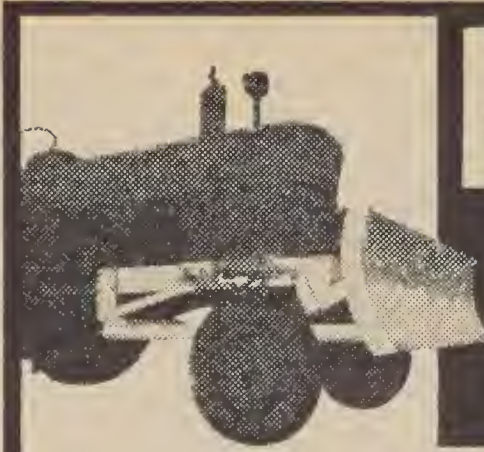
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February Issue.....Closes January 1

March Issue.....Closes February 1

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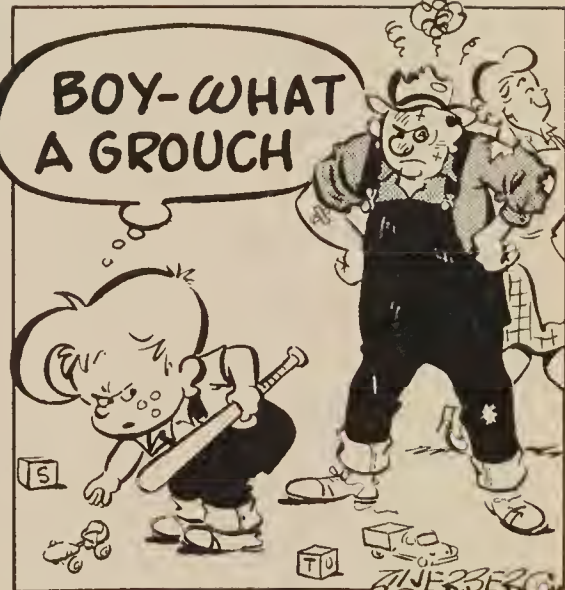
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Food For
The Spirit
by Robert Clingan
THE NEW YEAR

At midnight between December 31 and January 1 we wonder: "Will we be here another year? How much will we succeed or fail, gain or lose, be filled with joy or have our lives drained by fear, anxiety, and sorrow? What will the New Year bring?"

This will, of course, depend on the situations we face, the circumstances in which we find ourselves, the tides of human affairs that sweep in upon us and catch us up in their ebb and flow. In this shrinking world what happens or doesn't happen in Vietnam, in the United Nations or Washington, D.C. will affect us all.

Even more than by time and tide of circumstance will our lives be shaped by the resources within ourselves, the patterns of life and the strategy of living that have already become part of us. There is a continuity in world events that cannot be broken by the tolling of a bell on New Year's Eve; there is also a continuity within ourselves . . . we are the same kind of people who faced or evaded the issues of life in 1965.

This does not need to be as hopeless as it may seem. We can build on our best instead of our worst; we can minimize our defeats and expand our victories. We can choose to live a life of hope and trust and love. We can recognize with the old master sailors that

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WANTED — HORSE DRAWN CARRIAGES, surreys, wagons, coaches, sleighs, old cars. Send price, description and picture, if possible, in first letter. Arnold G. Carlsen, 77 Anderson Street, Hackensack, New Jersey.

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DAIRYMEN'S LEAGUE CERTIFICATES top prices all series any holder. Elaine Miller, Box 361, Ellenville, N. Y.

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RAISE RABBITS for us on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

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the same wind sank some ships, veered others off course, but sent the well-equipped and well-managed ships full speed in the direction of their destinations. We can ride the storms of life, handle our disappointments and frustrations, and use the energy released by tension for creative purposes.

The future is beyond our knowing. We do not know what 1966 will bring, what issues we will be confronted with, and how well we will work our way out of life's more perplexing dilemmas. Yet there is One who can give us the direction, the power, and the hope we need to face the New Year.

Minnie Louise Haskins described this source of direction, resource, hope and courage in "God Knows."

"And I said to the man at the gate of the year: 'Give me a light that I may tread safely into the unknown.' And he replied: 'Go out into the darkness and put your hand into the hand of God. That shall be to you better than light and safer than a known way.'"

NYABC ELECTS

At its last annual meeting, members of the New York State Artificial Breeders Cooperative re-elected directors Norman Allen, Schaghticoke; Stewart Benedict, Massena; Albert Fox, Olivebridge; and Glenn Porter, Watertown. Other directors, whose terms had not expired, include: Douglas Stanton, Greenville; Harold Harter, Jordanville; Erton Sipher, Gouverneur; Gerald Evans, Georgetown; John Proskine, Norwich; Alex Rabeler, Sr., Bovina Center; Richard Call, Batavia; Robert Drake, Woodhull; and George Rich, Franklin.

Passed unanimously was a resolution authorizing the creation of Eastern Artificial Insemination Cooperative . . . paving the way for the merger of cooperative AI organizations in the Northeast.

The New England Selective Breeders' Association, the Central Vermont Breeding Association, and the Maine Breeding Coopera-

tive also have voted unanimously to merge into EAIC. The New Hampshire-Vermont Breeders' Association voted on December 11 to join.

The North East Breeders' Cooperative in Pennsylvania rejected the merger proposal, even though it was recommended to the membership by the organization's board of directors. It was erroneously reported in December AA-RNY that NEBA also had joined EAIC.

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'Round the kitchen

with ALBERTA SHACKELTON



SOUP MAKES THE MEAL

A hearty cream soup or chowder, served steaming hot from Grandmother's antique soup tureen, is sure to "hit the spot" with family or guests on a chilly winter's day. Accompany it with a crisp green salad tossed with tart dressing and hot buttered French bread. For dessert, serve baked apples and oatmeal cookies, a choice of fresh fruit and chocolate cake, or apple gingerbread topped with whipped cream.

My good friend, Mrs. V. A. (Irene) Fogg of Ithaca, N. Y., graciously shares her recipe for the delicious Dinner Chowder I enjoyed recently at her home. Her go-alongs included Waldorf salad, Shaker blueberry bread, French bread, and chocolate layer cake, accompanied by small balls of ice cream. Here is her chowder recipe and my favorite recipe for apple gingerbread.

IRENE'S DINNER CHOWDER

- 2 cups raw potatoes, diced
- 3/4 cup finely chopped onion
- 1/2 cup coarsely diced celery
- 2 1/2 teaspoons salt
- 2 1/2 cups boiling water
- 4 tablespoons butter
- 1/4 cup flour
- 1/4 teaspoon pepper
- 1/2 teaspoon dry mustard
- 1 1/2 teaspoons catsup
- 2 cups milk
- 1/2 pound sharp Cheddar cheese, grated
- 1 tablespoon minced parsley
- 1 cup canned tomatoes

Combine potatoes, onion, celery, salt and boiling water in kettle; cover and simmer until potatoes are tender, about 15 minutes. Meanwhile melt butter, stir in flour, pepper, mustard and catsup, and add milk gradually. Cook until thickened, add cheese and stir until melted. Stir into the potato mixture; add parsley and tomatoes. Serves 4 to 6.



THE NEW YEAR

by Mildred Goff

Neither ending, nor a start,
It is a portion and a part
Of time that was, of time to be,
A segment of eternity.

APPLE GINGERBREAD

- 4 tart apples, peeled, cored and sliced (ones which hold shape in cooking are best)
- Sugar
- 1/4 cup shortening
- 1/2 cup brown sugar
- 1 egg
- 1/2 cup molasses
- 1 1/2 cups all-purpose flour
- 1/2 teaspoon cinnamon
- 1/2 teaspoon ginger
- 1/8 teaspoon cloves
- 1 teaspoon baking soda
- 1/8 teaspoon salt
- 1/2 cup boiling water

Arrange apple slices in greased baking pan about 9 x 9 inches square. Sprinkle with sugar. Place in oven preheated to 350 for 15 minutes.

While apples heat, cream shortening and brown sugar together, beat in egg, and stir in molasses. Sift together the dry ingredients and stir into shortening mixture, alternately with boiling water. Pour batter evenly over heated apples and bake until cake tests done, about 30 minutes. Serve warm.

Cut in squares and remove from pan onto serving plates. Place apple side up if desired and top with whipped cream, dessert topping, or vanilla ice cream. Makes about 9 medium-sized squares.

Whipped Cream Trick: Cream may be whipped ahead of time, sweetened and flavored, dropped in peaks on a baking sheet, and frozen hard. Remove peaks with spatula to plastic bags and place in freezer.

A frozen "dollop" may be placed directly on hot dessert; otherwise, place on dessert about 15 minutes before serving.

I find it handy to always have in the freezer a bag of whipped cream "dollops" — especially nice to serve with hot chocolate.

CONVENIENCE FOODS

A recent U.S.D.A. study of 158 convenience foods indicates that they may not always be as costly as one might think. For each \$100 spent for food in a grocery store, about \$12.55 goes for convenience foods. This same amount of food in natural form would cost \$12.82. The difference in cost is due in part to packaging at point of production which cuts transportation costs, reduces waste, and produces a product packed at peak of perfection.

The convenience forms of 42 of the 158 foods actually cost less than the homemade forms. For example, many processed fruits and vegetables are cheaper than fresh, but the cost of ready-to-serve baked products can make them two or three times more expensive than if baked at home. It is pos-

sible for the careful shopper to find both savings and convenience in her food purchases.

FOODS IN THE NEWS

Shake and Bake Coating Mixes from General Mills. One for fish and one for chicken, to produce a golden "fried" product without frying. Each packed in a 2-oz. package with disposable plastic bag shaker. Easy to use; chicken or fish pieces moistened with milk or water, shaken in bag with envelope of mix, placed on ungreased shallow baking pan, and baked according to package directions. Coating for chicken also used for veal and pork.

Instant Yams, a Royal Prince product of Louisiana sweet potatoes. Packed in a 5-oz. package retailing for about 29 cents, to serve 8.

Mashed Potato Buds, a new instant potato from General Mills. Tiny puffs of riced potato cost about 33 cents per package to serve 8.

Miracle Angle Food Cake Mix by Pillsbury, with all cake ingredients (special flour and new leavening method) combined in one package. Mix plus water can be whisked into an angel food cake in one minute flat, without the usual separate beating of whites and folding in flour.

Turkeys with Built-in Thermometers. Did your holiday shopping show up one of Norbest's turkeys with inserted cooking gauge? Indicator pops up when turkey is done.

German Chocolate Cake. This old-time favorite now available in two mixes from General Mills. One for the sweet light German chocolate cake and the other for a chewy coconut-pecan frosting.

Bisque of Tomato Soup. A new kind of soup from Campbell, made with cream, butter, and juicy pieces of tomato. Requires only the addition of water and heating.

Low-fat Cheese, developed from skim milk by the U. S. Dept. of Agriculture, with only 5 to 7 percent butter fat, compared to Cheddar's 31 percent. Will soon be market tested for future sale. This will be the first skim milk cheese for table use with a good body, texture, and flavor.

FOR THE KITCHEN BOOKSHELF

"Consumers All," the 1965 Yearbook of Agriculture, is full of information regarding food, household furnishings, clothing, money management, yards and gardens, houses, health, and community and leisure time activities. Your Congressman will send you a copy free as long as his supply lasts, or the book may be purchased for \$2.75.

"Be A Good Shopper," a leaflet prepared by U.S.D.A. home economists, tells how to plan your shopping trip, how to compare price and quality, what sales to look for and when, and what protective agencies will help you get what you pay for. Costs 5 cents.

Order both of the above books from Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.

"Vegetables in Family Meals" HG105. Includes ideas on buying fresh, canned and frozen vegetables, also storing, cooking and serving them. Gives 27 recipes (calories per serving included) and basic cooking methods, also handy spice guide. For a free copy, send your request on a postcard to: Office of Information, U. S. Dept. of Agriculture, Washington, D. C. 20250.

"Feeding the Family" — Cornell Extension Bulletin 1135. Discusses meal patterns for different families, food costs, how to purchase nutrition in the grocery cart, and meal planning. Single copies free to New York State residents; otherwise, 10 cents per copy. Send request to: Mailing Room, Stone Hall, N. Y. State College of Agriculture, Ithaca, N. Y.



Nothing tastes better on a cold wintry day than a bowl of steaming hot chowder! To complete the menu, serve with it a Waldorf or green salad, hot buttered French bread, and a simple dessert.

American Agriculturist, January, 1966

The AA Clothes Line

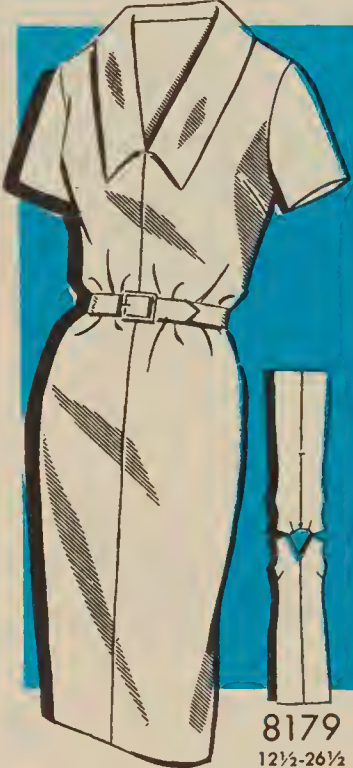
8118. Smart, sew easy dress and jacket set in half sizes. Sizes 14½ to 26½. Size 14½, 35 bust, dress, 3¾ yards of 35-inch; jacket, 2½ yards.

8179. Neat classic that is so becoming. Sizes 12½ to 26½. Size 14½, 35 bust, 3¾ yards of 35-inch.

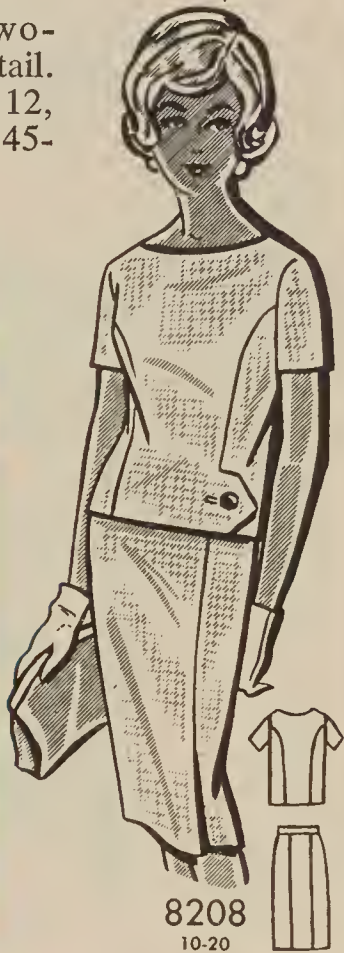
8208. Wearable two-piecer with nice detail. Sizes 10 to 20. Size 12, 32 bust, 3¼ yards of 45-inch.



8118
12½-26½



8179
12½-26½

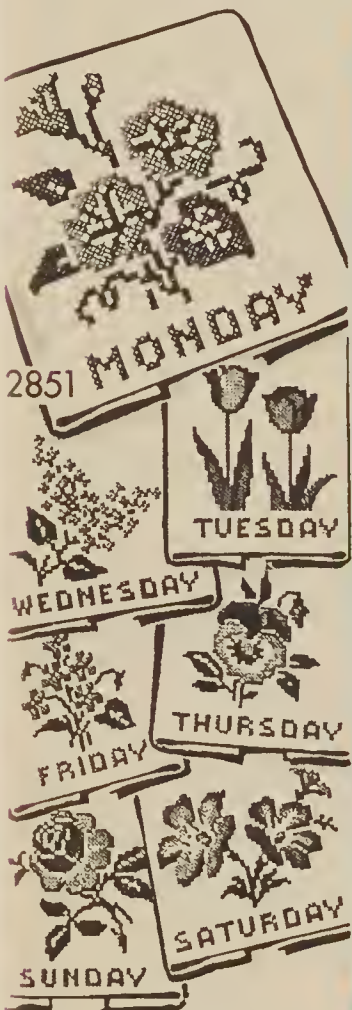


8208
10-20



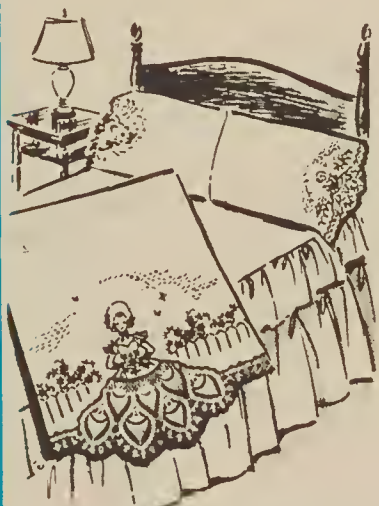
8321
1-5 yrs.

8321. For tiny girls — cute dress, bonnet and cape ensemble. Sizes 1 to 5 years. Size 2, dress, 1½ yards of 35-inch; bonnet, ½ yard; cape, 1⅛ yds. of 54-inch.



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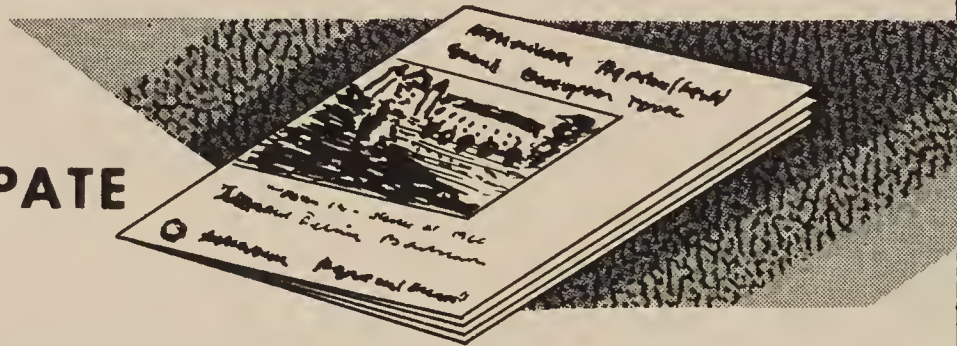
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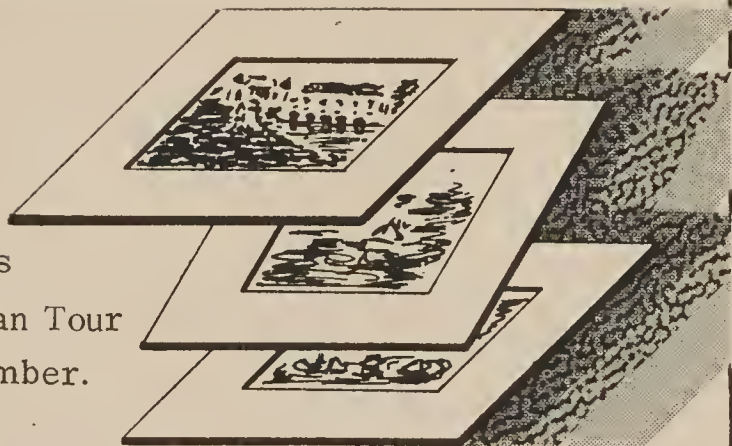


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Shown here is a cluster group of different shaped cement-asbestos containers, as seen at the New York World's Fair last year.

Planters

by Nenetzin R. White

PEOPLE TODAY seem to be finding more and more uses for plant containers. Now, I am not talking about flower pots (I'm sure you can find a good selection of them at your florist shop or garden center), but what I want to discuss is the large planters which are used both indoors and outside. These are made from various kinds of material and come in a wide range of sizes and shapes.

Wood

Wooden containers are usually made of redwood or cedar because these woods do not rot. They come in sizes from 8 inches to 2½ or 3 feet in diameter. The shapes are round, square, octagonal, or tapered. These normally come with metal bands or the newer nylon, which is usually antiqued to look like metal.

Most wooden containers have one or more holes in the bottom for drainage. This is a "must" when used outside. For inside use, just fit corks in the holes. Wooden planters are like barrels or boats and must be thoroughly soaked to be waterproof.

For the larger containers, dollies or coasters with wheels are available to make moving easier. These are attractive planters, but they do discolor and sometimes fall apart, so don't consider them completely permanent.

Fiberglass

Fiberglass is a permanent, waterproof material that seems to stand up indefinitely. It is used mostly for the larger size planters. Today, many boats are made from this same material, and presumably the plant containers could be patched, as boats are, if it became necessary.

Fiberglass planting forms have been used largely by cities, parks, and some homeowners. They are lightweight and come in round, round-tapered, rectangular and geometric designs. To date they have been mostly white, but color which will not fade or chip can be permanently impregnated into the material. The larger sizes are quite expensive.

Concrete and Asbestos

The newest containers are a mixture of asbestos and cement materials which are reasonably lightweight, durable and attractive. They seem to be available in more shapes and sizes than any other container, but, of course, all planters can be custom designed for your particular needs.

These containers can be pre-colored or painted on the job, which is often helpful in matching colors. Even in their natural color, they are most attractive; the background is light grey with white

(Continued on page 44)

A large planter like this can be used for a small tree or for flowers and ivy, as illustrated.



Photos: Canlin Corporation

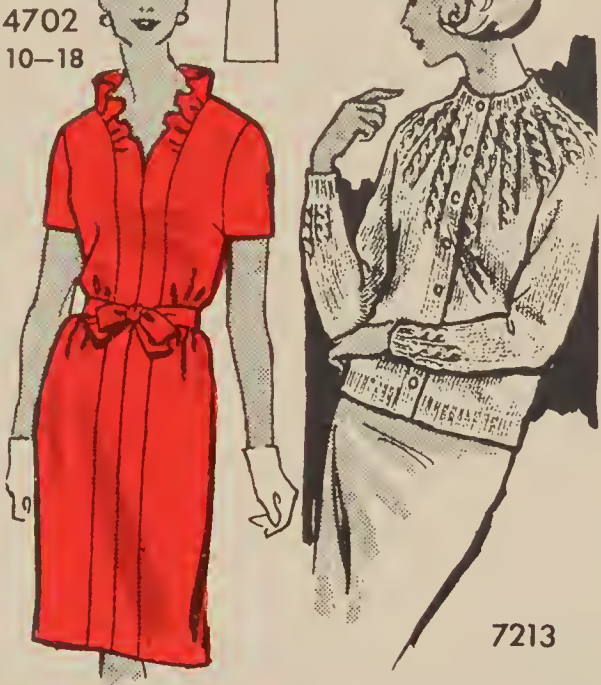
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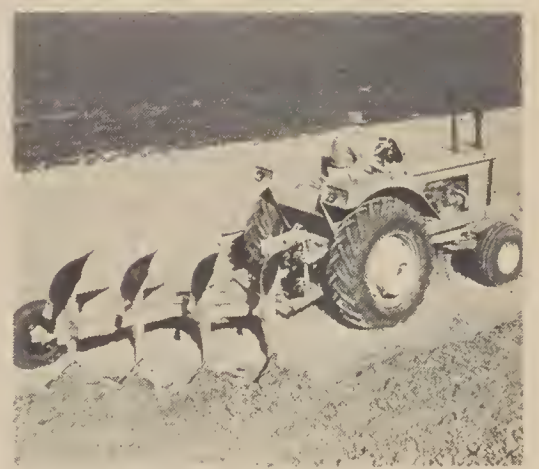
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Available in the New Idea Uni-System line for 1966 is this self-propelled forage harvester, available with row-crop or pick-up head, to fit the same interchangeable Uni-System power units which already accommodate corn picker, picker-sheller, and combine with cornhead or grain platform. The forage harvester's cutter head is a lawn type with 6 knives. Length of cut is controlled by 3-speed gear box, number of knives used, and 1 sprocket change. A screen may be fitted to chopper head to control size more accurately. There are 12 cut variations from 3/16 inch to 3 inch, with 2, 3 or 6 knives. Knife sharpener, standard equipment, permits daily touch-up of knives in less than 10 minutes.

Allis-Chalmers has added three and four bottom heavy-duty two-way plows to its farm implement line. An hydraulic rotating device incorporates a two-way ram actuated by a special spinner valve, which directs oil flow to control the entire turning cycle, allowing maximum leverage at the beginning of the spinning cycle. Plowing depth is controlled by an adjustable tail wheel which automatically swings into position as the plow is rotated. The new two-way line consists of two three-furrow models, one with offset frame and one with balanced frame, and a four-furrow offset frame unit.

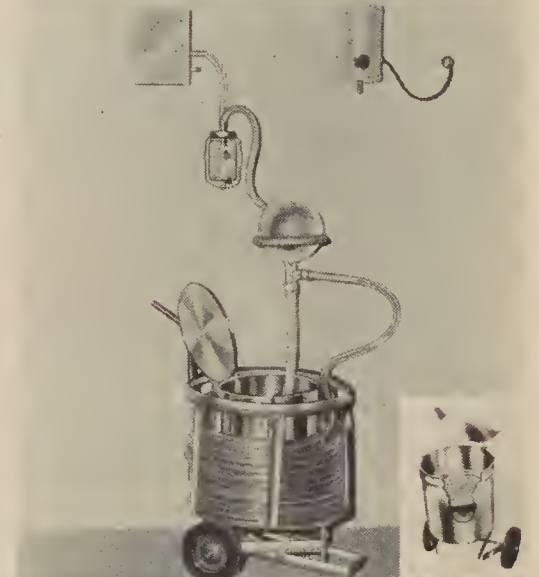
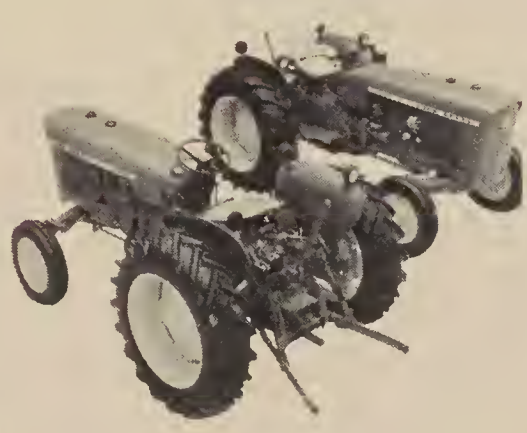
The Ritchie Manufacturing Company of Conrad, Iowa, has developed a new heavy galvanized steel Model 1AC specially designed as a general utility livestock waterer. It features a flexible plumbing connection enabling quick, easy cleaning and service by merely lifting the hinged trough.

Dairy and livestock producers have been waiting for a balanced mineral-vitamin supplement incorporating the research findings of the past two years. They have indicated their need for a completely new product, containing higher levels of available phosphorus, a narrow calcium-phosphorus ratio, trace amounts of magnesium and zinc, plus health-improving levels of vitamins A, D and E. Beacon reports it now has the answer... Beacon Mineral ADE.

A complete packaged unit, it comes ready to install... in an open feedlot with box-stalls or in small lots or pens. A low priced portable heater, the Ritchie "Hot-Scot," is available as optional equipment.

Zero Manufacturing Company recently put on the market a new milk transfer system called the Zero Porta Milk Siphon. This new system operates by vacuum... milk poured into the pail is siphoned by vacuum from the pail through the milk line into the vacuum bulk milk tank. The Zero Porta Milk Siphon has a complete washer and drier assembly that not only washes the Tygon tubing milk line, but also washes itself.

Deere & Company of Moline, Illinois, has recently introduced two totally new tractors... the 38 h.p. "1020" with a new John Deere-built 3-cylinder engine; the 53 h.p. "2020" has a new John Deere-built 4-cylinder engine. Both of the new tractor models are equipped with 8-speed constant-mesh transmission and are available with either gas or diesel engine.





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*Editor in Chief,
"Popular Needlework"*

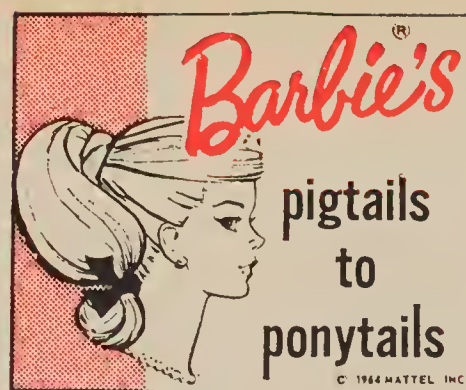
P.S.: Read what these happy readers say about "POPULAR NEEDLEWORK":

"It's terrific! It's full of wonderful patterns! I'll save more than the year's subscription just on patterns alone."

— Mrs. A. F. B., Massachusetts

"I've just received my first copy of 'Popular Needlework' and it is exactly what I've been looking for — a magazine filled with patterns and letters."

— Mrs. N. M. R., Indiana



Resolved—NOT To Promise

Remember that incident last week — or was it last month — when your gal friend at school PROMISED she would bring that record — or was it a book? And remember how disappointed you were because she forgot? Certainly, she didn't mean to break her promise but the alarm didn't go off; and that day the zipper got stuck in her dress; and the toast was burned; and — well, you know — she was in such a scramble to get to school on time she just plain forgot.

With the start of the New Year and with new leaves being turned over as fast as the real ones are falling off the trees, a lot of soul-searching is being done. And, with soul-searching come resolutions. Promises are made to: brush my hair 100 times a day; eat candy only on Saturdays; not pester Mom and Dad about getting two party dresses instead of one; and dozens of other well meant intentions that are equally as difficult to keep.

How about starting out this New Year by promising yourself not to make a promise you cannot keep? You'll not only heave a huge sigh of relief at the elimination of this burden, but you will also be able to realize how sacred a promise truly is.

By resolving NOT to promise, you'll be saving yourself and friends enormous disappointment. There are three precious words to replace a promise that command respect and love — they are: "I will try."

Have a happy New Year.

What's Your Hobby?

Winter Scenes from Cones

One of my hobbies is making winter scenes from cones. I shellac the cones (sprinkle glitter on some), and use Duco cement to paste them upright on a white asbestos ceiling block to represent a forest. Then I glue tiny animals and a house among the cones, also small colored stones I gather in the summer. They make pretty centerpieces. I would like to sell these scenes if I could — Mrs. Edward Riter, Main St., Strykersville, N.Y.

Arrowhead Hunter

In the winter I work with coins and stamps and have been collecting them since 1940. In the summer I use my spare time to hunt for arrowheads and enjoy this a great deal. The Indians had a camp here on our land at onetime, and now whenever my husband turns the soil, I can't wait to go look for arrowheads! — Mrs. Hedy Elder, R.D. 3, Bainbridge, N.Y.

ONE-ACT PLAYS!

Three Cheers For Woody
The New Hired Hand
The Riddle
Out of the Night
To Count Thirteen
Holloway's Hired Hand
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Christmas on the Farm
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To order plays, write to: American Agriculturist Play Dept., Box 370, Ithaca, New York. Enclose 50 cents for each play wanted. Send coins, money order or check. No stamps, please. Add 5 cents for complete list of plays, with brief description of each and number of persons in cast.

Oldtime Hobby

My hobby is somewhat unusual; it is candle dipping. I do it mostly to entertain people and show how candles were made in Colonial days. I am 83 and of course retired. As my hobby became known, I have been asked to give demonstrations at many different functions. — Charles E. Strickler, R. D. 2, Red Lion, Pa.

Planters

(Continued from page 42)

textured asbestos fibers. Extreme heat or freezing will not damage these planters, but they are damaged by being dropped or rolled around the job site.

Filling Containers

All outdoor containers need drainage holes, and as I said before, these can be plugged for indoor use. If possible, a layer of gravel should come next, and then the best soil mixture you can obtain. This should contain some peat, vermiculite, wood chips, or some such absorbent material and an organic-type fertilizer.

Vary the plantings used. In a nearby village, we planted flowering crabapples in large white containers. The village uses petunias and other annuals around the trees in the summer and greens with berries in the winter. What a difference this has made in that town! Another of the prettiest sights I have seen was a French hybrid lilac blossoming in a large white container.

If you attended the New York World's Fair, you may have noticed the cluster groupings of containers. This treatment is dramatic and delightful and can be used on terraces, lawns, along drives and walks, or wherever you wish. If your house entrance is large enough, try two containers on one side (usually slightly different shapes) and just one on the other. In many instances this is more attractive than just one planter on either side of the door. Try some of the dramatic new uses of containers to change your whole landscape picture.

American Agriculturist, January, 1966

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TAKE YOUR PICK!

AGAIN THIS YEAR, American Agriculturist is offering you a choice of European tours — a Grand European Tour in May, a Scandinavian Holiday in June, and a British Isles Tour next fall. This month we want to tell you a little about the first two, and later we will give you the itinerary for the British Isles trip. We just want you to know there will be three tours offered, so you can decide which one you want to take.

Our Grand European Tour will leave New York on May 14 and return June 21. We will sail on the famous SS Rotterdam, newest and largest ship of the Holland-American Line. We'll enjoy the beautiful staterooms, spacious decks, delicious meals, and luxurious lounges on this fine cruise ship. If you prefer to make either or both of the Atlantic crossings by air, our tour agents, the Travel Service Bureau of Needham, Massachusetts, will be glad to make the arrangements for you.

Words cannot possibly describe, nor space permit us to tell you, all the thrilling and beautiful sights you will see on this tour — we will list only a few.

Holland — Rotterdam, The Hague, and Amsterdam.

Belgium — the giant flower auction hall in Aalsmeer, Antwerp, and Brussels.

Rhine River Cruise — A day we'll never forget. Quaint villages nestled between steep banks and the water's edge, century-old castles, and vineyard keepers clinging to the cliffs as they work.

Switzerland — Zurich and Lucerne with its unsurpassed view of the snow-capped Alps.

Austria — Oberammergau and then through beautiful Garmisch-Partenkirchen to the lovely Tyrolian city of Innsbruck.

Italy — the lovely Dolomite region and Cortina; Venice, Florence, and Rome.

The Riviera — Monaco and the home of Princess Grace, also the famous Monte Carlo Casino.

France — Chateaux District, all the sights of gay Paris, Versailles, and Rouen. We reboard the SS Rotterdam at LeHavre.

Spring in Scandinavia (June 7-28)

No other season in Scandinavia
American Agriculturist, January, 1966

offers as much! With the Midnight Sun glowing around the clock, days are longer for sightseeing and enjoying the folk festivals. Again, here is just a brief summary of the places we will visit.

Denmark — the Fairy Tale Land of Hans Christian Andersen, "Wonderful, Wonderful Copenhagen" with its Tivoli Gardens, palaces, and castles.

Sweden — the rich farmlands of southern Sweden, scenic Lake Vattern, Visby on the Island of Gotland, fascinating Stockholm, and the delightful Province of Dalecarlia.

Norway — We'll have six unforgettable days in this Scandinavian country, the grand climax of our trip. We'll see its sparkling fjords, beautiful springtime flowers, quaint houses, snowcapped highlands, breathtaking scenery, and interesting people.

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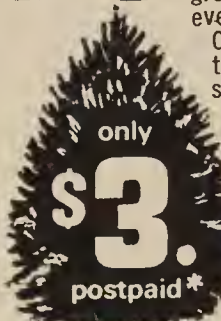
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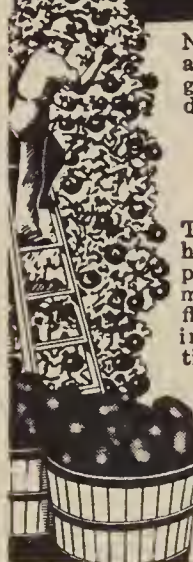
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ED EASTMAN'S PAGE

"PAYING YOUR PASSAGE"

How do you start your day? Do you get up each morning and look ahead to a dreary, monotonous round of chores and other duties, just as you have done day after day most of your life . . . like a dog on an old-fashioned treadmill, walking, walking, walking, but never seeming to get anywhere?

If you do, if to you life has no purpose, then you are indeed an unhappy person, of little help to yourself or to anybody else. If you seem to be getting nowhere, it is perhaps because you have not set any goals for yourself beyond today, so that you have no stars to shoot at and nothing worthwhile to look forward to.

Maybe you do have a material or financial goal to work and live for. Perhaps, for example, you may be working to pay off the mortgage, or to buy a new tractor for the farm or a television set for the home. These are good and worthy goals . . . but they are not enough. To be really happy you must raise your sights beyond material possessions.

Take Inventory

A good business farmer takes an inventory at the beginning of the new year of his physical and material possessions. It is even more important to inventory our spiritual assets and decide on how we will add to them during the coming year and years.

You can do this quickly by giving an honest answer to the following questions:

First, Who am I?

Well, sure enough who are you? Have you in these hectic times ever paused to ask yourself that fundamental question? How would you answer it? If you had to describe yourself as you really are to someone on whom you wanted to make a good impression, would you be proud of your answer? How would you answer that question to God?

The second question in your spiritual inventory is: Why am I on earth?

When I ask a college student this question he often answers: "I don't know."

But many others do have the right answer when they reply, in one way or another, "I am here to help others." Unless we are helping others there is not much purpose in our lives, nor do we have much excuse for being here.

Helping others should start first with our own families, with those whom we love. Then, as circumstances permit, we can branch out

from those nearest and dearest to help everybody else that we can. I call this "Paying our passage."

As you ask yourself these two soul-searching questions, or in some other way take your personal inventory, are you satisfied with your answers and with your spiritual assets? What can you do more than you are doing to add to them and be a better person? Are you justifying your existence here by paying your passage?

What a grand old world this would be if all of us could come anywhere near reaching this shining goal!

"REMEMBER WHEN"

One of the nice things about memory is that it helps us to forget most of the problems and troubles of the past and recalls only what made us happy when we were young.

That is the reason why as we grow older we are so apt to think that life was easier and better when we were young than it is now. Of course that is not true. It is true that living years ago was much simpler and less complicated than it is now. But when I think of those long ten-hour days on the business end of a hoe, crosscut saw, or other hand tools, I am glad that farmers now have tractors and other machinery with which to do their work.



But still it is fun, pleasant, and does no harm to reminisce and talk about the good things when we were young. That is what I have tried to do in my book "Journey to Day Before Yesterday." The hundreds of letters that I am getting from readers prove that I have helped many to relive the pleasant and happy parts of their lives . . . and knowing that I have helped others to some happiness makes me happy.

Maybe you in turn can bring some happiness to yourself and to members of your family and friends by reading "Journey to Day Before Yesterday," and by helping others to read it.

This beautifully-printed, bound, and illustrated book will be mailed to you postpaid on receipt of your check or money order for \$5.95

for each copy. (New York State residents include 12 cents for tax). Write American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York.

BELIEVE IN DOWSING?

When on a trip some years ago the late Dr. Carl E. Ladd, then Dean of the New York State College of Agriculture, Belle, Margaret and I, stopped at a gasoline station. Tipped back against the building was an elderly man playing with a forked stick. When I asked him what it was, he said it was a dowsing or divining rod, and that he used it for locating underground springs and streams.

Not in any hurry, I asked the old man if he would show us how the rod worked. Jumping to his feet, he grabbed the ends of the little stick, one in each hand, and holding it horizontally, walked slowly across the yard. Suddenly the stick turned downward and the old man said: "If you were to drill here, you would get a good supply of water."

"Dowsing" . . . sometimes called "water witching" or "water divining," has been in use for centuries. There is evidence that the practice goes way back to the ancient civilizations of the Medes, Persians, Egyptians, Greeks and Romans.

Different materials are used for the dowsing rod, depending on what you are looking for. For example, the hazel bush from which comes our witch hazel is considered best for locating silver, ash for copper, pitch pine for lead, and tin for iron. To locate water, either wood or metal may be used in the rod.

I don't know of any minor matter over which there has been more controversy than there has been about dowsing. Scientists want no part of it. For example, dowsing rods are used most frequently now to locate water. They are supposed to find underground springs and streams . . . but scientists laugh at this, saying that there are no underground springs or streams.

There is no disputing the fact that the dowsing rod will turn downwards as you walk slowly with it, working much better with some people than it does with others. Those who don't believe in dowsing point out that it only takes a very slight pressure of the hands sometimes to make the rod turn downward. Even slight muscular fatigue can make the rod react without the operator being conscious of it.

It may be true . . . as often with other things . . . that we forget the times when the dowser does not work, remembering only the times when water was found where the dowser indicated.

Anyway, whether you believe in the divining rod or not, it does no harm to use it. What do you think?

"THE KEY OF LIFE"

One summer when we were first married I decided that for once we would have all the tomatoes

we could use, so I set forty or fifty nice plants that I had grown in a box in the kitchen window. After the plants were well started in the garden, I began watering them with liquid rich in nitrogen, from the drop in the stable.

Like Jack and his beanstalk those tomato plants grew and grew — high, wide and handsome. I have never seen such big healthy looking plants. But there were not more than a half dozen good tomatoes in the whole kit and caboodle.



Thus early did I learn by hard experience that fertilizer must be balanced. I had overfed the tomato plants with nitrogen in proportion to other necessary ingredients, especially phosphorus.

When I was a boy at home we bought little commercial fertilizer, but we always did use phosphorus . . . which we called phosphate. So important is phosphorus to both plant and animal life that it is sometimes called the "key of life," or "the fertilizer keystone." Phosphorus is naturally in the soil, in plants and animals, and in our bodies — mostly in our bones and teeth. Without it we could not long exist.

When cows show an abnormal appetite by licking walls and eating dirt, etc., they are lacking phosphorus. Because milk is very high in this element, cows require plenty of phosphorus in their feed. It is often necessary to supplement the cows' rations with phosphorus in the form of bone meal or calcium phosphate.

Growing plants soon show if they lack phosphorus. Growth will stop, and the lower leaves will turn to a very deep green color, or will be red. The plant, like my tomatoes, will probably not set much fruit; if it does, maturity is likely to be long delayed, as will the maturity of the plant itself.

Phosphorus helps to break down the carbohydrates, that is starches and sugars and other foods, so that the plant can use them.

One of the most interesting and important processes in nature is called photosynthesis, a method by which plants, usually through their leaves, transfer the energy of the sun into plant food. The next time you see a tree with its thousands of leaves remember that each leaf is a little food factory in itself. Phosphorus in the soil is necessary in this process.

EASTMAN'S CHESTNUT

"Daddy, my teacher wants me to prove that the white man is superior to the Indian," said Tommy. "Can you help me?"

"Don't think so, son," replied Daddy. "When the white man took over this country the Indians were running it. There were no taxes, there was no debt; the women did all the work. How could they improve on a system like that?"

American Agriculturist, January, 196



SERVICE BUREAU



\$25.00 REWARD

For many years we have paid rewards in connection with certain crimes against subscribers. Effective January 1, 1966, our \$25.00 reward check is offered to the person who gives information leading to the arrest, conviction, and imprisonment for at least 30 days of anyone who:

Defrauds or attempts to defraud a subscriber;

Sets fire to farm buildings belonging to a subscriber;

Steals livestock, poultry, or property from a subscriber.

The purpose of the reward offer is to encourage readers to give information to law enforcement authorities as well as to show that it is not safe to steal from or defraud an American Agriculturist-Rural New Yorker subscriber. The reward does not necessarily go to the person against whom the crime is committed nor to a subscriber.

Payment of the reward is subject to the following rules:

1. The act of fraud, arson, or theft must be committed against a subscriber who has a Protective Service sign prominently displayed.

2. Claim for a reward must be made promptly within 30 days after conviction.

3. Conviction must result in a jail sentence of at least 30 days. No reward will be paid if sentence is suspended or the culprit is paroled.

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5. The reward will not be paid in the case of theft from commercial concerns, only from farms.

for information leading to the arrest, conviction and 30-day jail sentence of anyone who defrauds, steals from, or commits arson against a subscriber who has a Protective Service sign posted, except that rewards will not be paid for theft from commercial firms — only farms.

Sorry

We cannot answer legal questions or give any help in legal matters, nor can we handle a complaint that is already in a lawyer's hands.

We cannot handle any complaint that is over 6 months old.

We cannot collect accounts for commercial concerns or settle disputes or claims between individuals.

To Get Attention

In order to avail yourself of our service, the following conditions must be met:

1. Attach to your letter the address label from your latest copy of American Agriculturist-Rural New Yorker. This shows that you are a paid-in-advance subscriber and entitles you to our free services.

2. Write out your question or complaint clearly and fully. Enclose any necessary papers so that we may have all of the facts in your first letter, and include stamps for reply or the return of your papers. If you write us the second time about the same complaint, mention the name of the concern. If you are requesting information about a company, tell us what their business is.

3. Be sure to date your letter and include your full name and address.

4. Send your complaints or inquiries to:

Service Bureau
American Agriculturist
and the Rural New Yorker
Box 370
Ithaca, New York 14851.

THANK YOU NOTE

"For many years my father subscribed to the Rural New Yorker. The first thing read was the Publisher's Desk. When we moved to New Jersey we transferred our subscription, and eventually it was the American Agriculturist Service Bureau that we read first.

"This is to thank you for all the money you have saved us, not to mention headaches! We have turned down transient 'lawn repair' people, home improvement companies, driveway resurfacers, etc., and have had necessary work done by local reputable people who have charged much less in the long run. We read and hear with great amazement of the people who have been 'taken' by these itinerants. We are lucky to have been so well guided by your column, and again wish to thank you for the trouble you have saved us." *Miss M. E. Dreisbach, Oceanport, N. J.*



TRACTOR UPSETS

Richard Young of Columbia Cross Roads, Pa. was on his way to cut a field of oats. The left rear wheel of the tractor dropped in a hole. When the tractor tipped over it pinned Mr. Young underneath. He suffered severe acid burns, a leg broken in two places and broken pelvis.

Local agent, G. L. Taylor is shown delivering checks which paid \$1771.00 in benefits from North American policies. Here is what Mr. Young said—



"My three policies helped me by paying my hospital bills and enough more to pay a boy to do the chores.
"I liked it well enough so I took out two policies on each of my two boys."

Richard Young

OTHER BENEFITS PAID

John D. Finch, Port Crane, N.Y.	\$ 244.38
Auto Acc.—multiple cuts and bruises	
Laura T. Miller, Gowanda, N.Y.	1390.00
Fell—broke hip	
John A. Smith, E. Randolph, N.Y.	316.28
Chain saw acc.—severed tendon	
Phebe King, Scipio Center, N.Y.	504.26
Fell on ice—broke wrist	
George Edmunds, Cayuga, N.Y.	1811.72
Hit by truck—multiple cuts and bruises	
Benjamin Cochran, Ashville, N.Y.	1773.55
Caught in crimper—loss of leg	
James Tracy, Van Etten, N.Y.	280.29
Changing tire—snap ring broke cheekbone	
Ransford P. Angell, New Berlin, N.Y.	643.06
Auto acc.—crushed chest, broke ribs	
John Hyer, N. Pitcher, N.Y.	360.56
Kicked by cow—broke arm	
John S. Campbell, Churubusco, N.Y.	555.35
Switched by cow's tail—injured eye	
Richard Anderson, Little York, N.Y.	933.09
Thrown from tractor—injured back	
John Gesell, East Meredith, N.Y.	150.56
Caught thumb in fan blade	
John Musacchio, Lawtons, N.Y.	440.71
Riding tractor—broke ribs	
Carlton P. Blair, Bombay, N.Y.	1284.25
Attacked by bull—broke leg, cut scalp	
Joseph B. Greene, Oakfield, N.Y.	276.98
Unhooking plow—broke leg	
C. Donald Morse, Prattville, N.Y.	196.55
Bit by dog—injured elbow	
James Ward, W. Winfield, N.Y.	268.78
Fell off wagon—broke ankle	
George Robbins, Sacketts Harbor, N.Y.	385.38
Kicked by cow—inj. knee	
Nelson Hock, Castorland, N.Y.	140.00
Ladder broke—injured back	
Terence J. Fitzgerald, Castorland, N.Y.	1440.00
Auto accident—broke leg, cut forehead	
Robert Beecher, Livonia, N.Y.	391.57
Kicked by cow—broke arm	
Milton G. Denison, Canastota, N.Y.	287.42
Crushed by cow—injured shoulder	
Edward Sager, Amsterdam, N.Y.	127.00
Caught in gear—broke finger	
Gerald E. Smith, Middleport, N.Y.	392.50
Fell on concrete floor—broke arm	
Winifred Mason, Jamesville, N.Y.	260.00
Pedestrian Acc.—cut knee, injured arms	
Jensine C. Fritz, Geneva, N.Y.	338.18
Tripped over puppy—broke leg	

Walter Szelagowski, Port Jervis, N.Y.	\$ 352.86
Thrown off moving wagon—inj. ankle and foot	
Sylvan E. Wolfe, Kendall, N.Y.	115.70
Fell from ladder—injured back	
Fred W. McCann, Fulton, N. Y.	135.00
Kicked by horse—injured leg	
Mary Steele, Richfield Springs, N.Y.	110.14
Fell on ice—broke arm	
William J. Brown, Heuvelton, N.Y.	170.58
Caught in gate post—cut fingers	
Raymond Keys, Schenectady, N.Y.	593.82
Auto acc.—inj. back and shoulder	
Richard Bettig, Middlebury, N.Y.	1125.06
Slipped getting on tractor—inj. leg	
Curtis M. Thompson, Interlaken, N.Y.	109.58
Fell off truck—inj. shoulder	
Charles T. Hunt, Sr., Rathbone, N.Y.	1116.08
Gasoline can exploded—burns leg & thigh	
Byron Bennett, Hornell, N.Y.	533.32
Fell from tree—inj. back	
Richard Brink, Berkshire, N.Y.	230.13
Fell on thorn branch—inj. hand	
Elsie Todd, Freeville, N.Y.	344.39
Fell ice skating—fract. wrist	
Robert A. Ray, New Paltz, N.Y.	214.28
Tractor slipped off plank—broke ankle	
W. Francis Lake—Lyons, N.Y.	218.64
Slipped getting off tractor—broke ankle	
Olen Bicksler, Bellona, N.Y.	1031.50
Auto acc.—injured arm	
King Leonard, Gillett, Pa.	202.64
Fell from tractor—inj. knee	
Leo A. White, Uniondale, Pa.	340.00
Hit by car—broke leg	
Jack Rothschild, Bricktown, N.J.	556.42
Fell on ice—broke leg	
Ralph J. Michel, Trenton, N.J.	155.00
Fell down stairs—broke ribs	
Felix Hoefling, Columbus, N.J.	139.25
Using power saw—cut hand	
Peter Thompson, Dudley, Mass.	152.86
Pedestrian acc.—inj. face, leg & knee	
Robert R. Cote, Hinsdale, N.H.	250.14
Cranking motor—broke wrist	
Robert McGinness, Cornish Flat, N.H.	798.45
Slipped washing tank—inj. back	
John Welch, Hancock, Vt.	1025.00
Cut arm, arteries, nerves with scythe	

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1. We try to iron out difficulties and misunderstandings between our subscribers and commercial concerns and, when we feel a complaint is justified, we try to arrange a satisfactory adjustment or settlement.

2. Whenever possible we supply information on commercial concerns. We will tell you if we have had complaints against them.

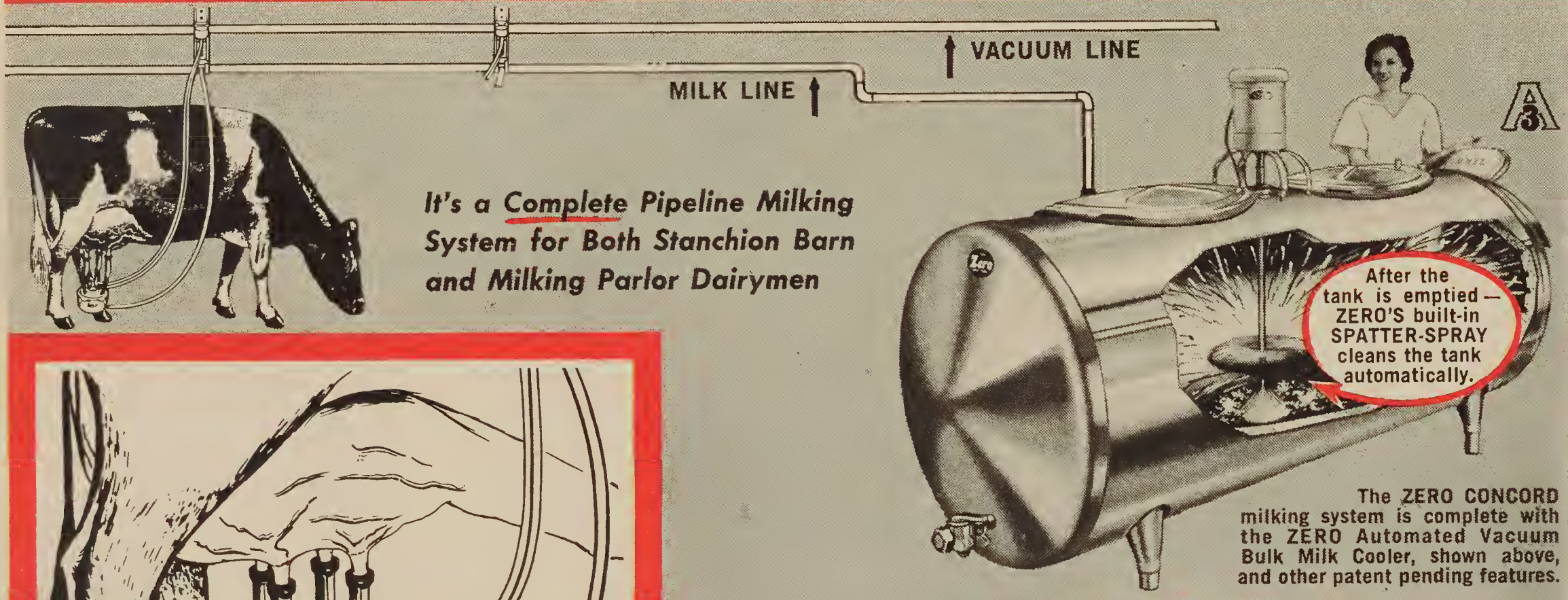
3. We find answers to many questions, such as where to write for certain information or whom to contact about specific problems. We also answer questions concerning posting and fencing laws.

4. We pay rewards of \$25.00

American Agriculturist, January, 1966

NEW!.....Zero® HAS INVENTED A REVOLUTIONARY MILKING SYSTEM

That Gives You the Safest, Fastest, Most Labor-Saving Milking Ever Performed —Plus "Push-Button" Self-Cleaning of the Entire Pipeline and Bulk Tank System!



It's a Complete Pipeline Milking System for Both Stanchion Barn and Milking Parlor Dairymen

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The ZERO CONCORD milking system is complete with the ZERO Automated Vacuum Bulk Milk Cooler, shown above, and other patent pending features.

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THE NEW
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TWIN-VACUUM PIPELINE MILKING SYSTEM

OPERATES BY NEW, SCIENTIFIC PRINCIPLE... **TWIN-VACUUM!**

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This new ZERO CONCORD **TWIN-VACUUM** COMPLETE PIPELINE MILKING SYSTEM is a combination of a new, revolutionary type of milking machine and pipeline, and the ZERO Completely-Automated Vacuum Bulk Milk Cooler.

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While conventional milking systems operate with air injection — the ZERO CONCORD operates with *two, separate vacuums*; each doing an entirely-different job.

One vacuum — in the air line that's connected to the vacuum pump — *milks the cows*. The other vacuum — in the milk line that's connected to the *vacuum* bulk tank — *moves the milk, siphoning it quickly through the milk line into the bulk tank*.

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TWIN-VACUUM GIVES YOU THESE ADVANTAGES:

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This prevents air agitation and foaming of the milk — a cause of rancidity. And keeps air-laden bacteria and odors out of the milk. **RESULT** — *higher-quality milk*.

● **NO VACUUM FLUCTUATION — SAFE, FAST MILKING!** As *vacuum* moves the milk from the milker units instead of air injection — *there's no vacuum fluctuation*. You get the *absolute, uniform and low vacuum* at each individual cow that's necessary for safe, fast milking.

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● **"PUSH-BUTTON" SELF-CLEANING AND SANITIZING OF MILK LINE, VACUUM LINE AND BULK TANK!** The ZERO CONCORD is the first, complete milking system that has "push-button" clean-up of the entire system.

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SIZE OF MY HERD.....

ADDRESS.....PHONE.....

TOWN.....STATE.....

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FEBRUARY 1966



American **A**griculturist

and the

RURAL NEW YORKER

FOR THE NORTHEAST FARMER





Exaggerated? Yes! But the predicament of our rabbit friends points out the remarkable re-growth power of DeKalb Sudax Brand SX-11, the amazing Sorghum-Sudangrass hybrid. Hundreds of farmers confirm this quick growth—2 inches or more a day under good conditions. This growth can produce several large cuttings in a single season. SX-11 makes a palatable, nutritious Summer pasture. Drilled thick,



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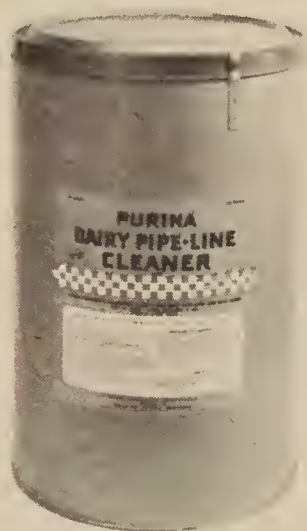
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Belongs on Every Farm



This is Vishnu number two god of India

Since he has six arms, it is said that Vishnu can do 3 jobs at once. Not bad, even for a number two god.



this is PURINA DAIRY PIPE-LINE CLEANER...

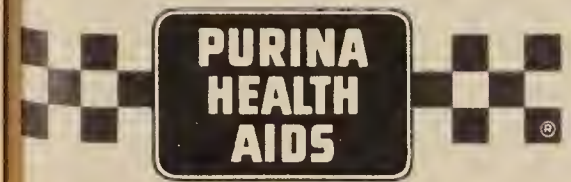
the "Vishnu"
of dairy cleaners

It doesn't have arms, but it can also do 3 jobs at once—clean pipe-lines and bulk tanks, check corrosion, and prevent milkstone. That's why Purina Dairy Pipe-Line Cleaner is fast becoming the number one dairy cleaner.

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So, for proper milk sanitation requiring the right job of cleaning, be sure you use Purina Dairy Pipe-Line Cleaner—the "Vishnu" of dairy cleaners—at your Purina dealer, in 25-lb. and 100-lb. sizes.

Ralston Purina Co., St. Louis, Mo.



American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 163, No. 2

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OUR COVER

"The cold begins to strengthen as the days begin to lengthen." But there is the promise of a new crop season in the air . . . soon that wood will be boiling maple sap, the melting snow will be watering pastures, and life will stir anew across the land!



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A combination of LOROX™ linuron weed killer and Atrazine is the new angle for corn growers

Combinations are the answer to annual weed and grass problems that no single herbicide can solve alone. Many farmers used a combination of "Lorox" and Atrazine in 1965 and were highly pleased with the results. "Lorox" is recognized for its outstanding ability to control weeds and also for its favorable rate of disappearance from the soil. Atrazine is known for the manner in which it is tolerated by corn. This combination capitalizes on the strong points of each herbicide.

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Better Things for Better Living
...through Chemistry



ONE MAN - ONE VOTE

by Gordon Conklin

THE SUPREME COURT shook our political framework to its foundation when, on June 15, 1964, it decreed that both houses of state legislatures must be apportioned on a strict population basis. Since then, it has become obvious that this means all political subdivisions must meet the same test. Here's a report on what's happening over the Northeast in terms of impact . . . present and future . . . on rural people.

First, though, let's review quickly just why the shooting started in the first place. Bluntly, some legislative cowpokes got in the saddle in certain states and refused to get off . . . unless roped off by the law. For example, Illinois did not reapportion its legislature between 1901 and 1955; Indiana "forgot" to do it from 1921 to 1963; Michigan ignored reapportionment since a half-hearted gesture made in 1925 . . . this in spite of the fact that the constitutions of these states mandated reapportionment at least every ten years.

Prior to reapportionment, Connecticut's smallest senatorial district had a population of 21,000; the largest contained 176,000 people. The House was even further off, with the smallest district having a population of 192 people and the largest 81,000 . . . a ratio of 1 to 425 whereby twelve percent of the State's population could elect a majority of the House of Representatives!

Pennsylvania had a situation where average population per representative deviated from 47.1 percent above average in the first district of Dauphin County, Harrisburg City, to 91.7 percent below average in Forest County.

From all this developed what Senator McNamara of Michigan called, "discrimination based not upon the color of your skin, the church where you worship, or the country from which your ancestors came, but upon where you live." No question about it, some states were governed by minority rule.

But the argument developed for an even more basic reason than the flagrant disregard by some legislatures for their constitutional mandates. The storm blew up fundamentally because our country has become . . . very rapidly in the 20th century . . . an urban one. The 1960 census shows that nearly seventy percent of our 180 million people live in what the census defines as urban areas, and the prediction for 1980 is that eighty percent of the population will reside in such areas. Political weight has shifted very slowly, particularly in some states, from rural areas to these burgeoning urban ones . . . and the under-represented became increasingly sore about it!

Pro and Con

In reviewing the major arguments for and against the one man-one vote mandate, it appears that one oft-repeated opposition point is that reapportionment is a political question and should be left to the political . . . not judicial . . . processes. Others point out that rural minorities might be placed at the mercy of big city political machines that couldn't care less about the objectives of rural people.

Further, the question is raised as to why the national Senate is specifically required by the Constitution to include two members from every state . . . regardless of population. If this is valid at the national level, why not on state or local levels?

Another point not often published, but sometimes privately discussed, is whether rural people are by nature more morally upright and capable of self government than urban folk. If this were true, then perhaps rural voters deserve greater weight in legislative halls. Interestingly enough, Earl Warren (as Governor of California) once said, "The agricultural counties of California are far more important in the life of our state than the relationship their population bears to the entire population of the state." He vigorously opposed reapportionment of the Golden State's Senate in 1948.

In Favor

Arguing on behalf of the Court's decision are those who point to instances of malapportionment already mentioned. In some states, the reluctance of legislatures to reapportion themselves was exceeded only by their determination that no one else should do the job for them. In those states, it became obvious that residents of under-represented districts were unable to obtain appreciable change by the political process . . . and so turned to the judiciary in desperation.

Furthermore, equal representation in one house of a bicameral legislature didn't mean very much if the other house was out of line . . . for legislation must pass both houses. As Senator McNamara of Michigan said, "When a clear perspective is taken of this question, it boils down to this simple question: 'What percentage of the minority of the people should control the majority?'" Legislative control can hardly be defended as a method of protecting minority rights; our constitutional system protects minorities by other means than giving them majority control of legislatures . . . whether Amish, automobile dealers, Puerto Ricans, or rural people.

It's tough to make a clear cut case against majority rule in the light of our nation's democratic tradition. This is especially true if one ponders thoughtfully the question, "Is the tyranny of majority rule over the minority ever likely to be worse than the tyranny of a minority over a majority?"

Now let's turn briefly to a consideration of the possibilities of overturning the Supreme Court's decision by a constitutional amendment. The chances look dim . . . either from the direction of Congress or from the individual legislatures of the states demanding a constitutional convention. Predicting the outcome of competition . . . whether at the rostrum or on the gridiron . . . is always hazardous, but it looks to most informed observers that the decision will stand.

Therefore, the next question concerns the impact it will make on the way government is run. Here are some generalizations:

1. Northeastern states moved quickly to

reapportion state legislatures on a temporary basis, but most plans developed are still not settled down. Some states will have constitutional conventions to review the whole business again; all states are in various stages of ferment along the route to a permanent settlement of the issue.

The degree of change from previous conditions will vary by states. New York's state legislature, for instance, will change complexion far less than will be the case at local governmental levels. New Jersey, on the other hand, anticipates relatively small change at county levels.

Look ahead to a period of ferment and change at state levels for a few years, as well as at local levels. Statesmen from both parties can speed up the process, but there will be many an instance of political parties jockeying for position and impeding progress as a result.

2. The change with the most far-reaching impact in most states will be in local governments. For instance, New York State's county boards of supervisors have traditionally had one representative from every town, regardless of the town's population . . . clearly out of line with the Supreme Court decision. The town of Union in Broome County is entitled to 9 supervisors on the basis of 1960 population, rather than 1. At the other extreme the town of Nanticoke in that same county would be entitled to .12 supervisor.

Connecticut, unlike most northeastern states, has no county governments . . . functioning politically at local levels in towns divided into voting or election districts. So far, not much has been done on reapportionment of local councils.

New Jersey is set up at the county level so that 17 of 21 counties elect their governing bodies . . . the boards of chosen freeholders . . . on an at-large basis by voters over the entire county. Presumably, these 17 county governments will have no reapportionment problem. The other four, however, are fair game for challenge because apportionment does not take into account population distribution.

3. Suburbia is the big gainer in this change, not the central cities. The trend of a declining population in central cities, noted dramatically by the 1960 census, is likely to continue. Houses continue to spring up in developments adjacent to cities, and speckle the countryside in all directions . . . but people aren't building as many new homes within the city limits themselves.

In New Jersey, for instance, the six largest cities of Newark, Jersey City, Paterson, Camden, Trenton, and Elizabeth contain only 19 percent of the Garden State's total population.

Under Pressure

That local governments are under pressure to reapportion is very apparent. Monroe County, New York, has already adopted, by voter referendum, a charter based on one man-one vote. Town supervisors will continue to function, but only in the towns; county government has been taken away from the supervisors and is in the hands of what are known as county legislators. The county has been divided into districts, each having reasonably equal population (21,000 lowest and 22,135 largest), and the legislators are elected at-large within these districts.

Schenectady County in the Empire State has also moved in this direction; Sullivan County and the city of Binghamton are under court order to use weighted voting until a more permanent system is devised. Weighted voting, by the way, has a glaring disadvantage in that one man with a large number of votes could dominate a legislative committee.

State legislatures, including New York's will undoubtedly be wrestling with local re-

(Continued on page 18)

American Agriculturist, February, 1966

**"Lew Barden,
where'd you get
that new barn?"**



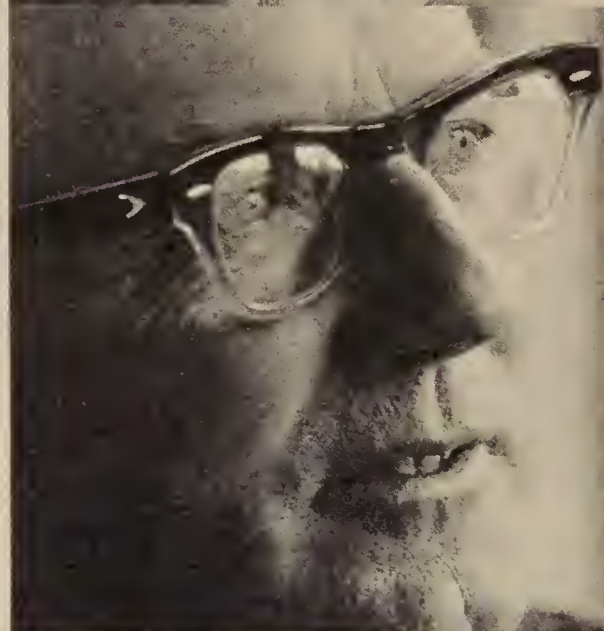
"Agway."

**"And all that
automated
equipment?"**



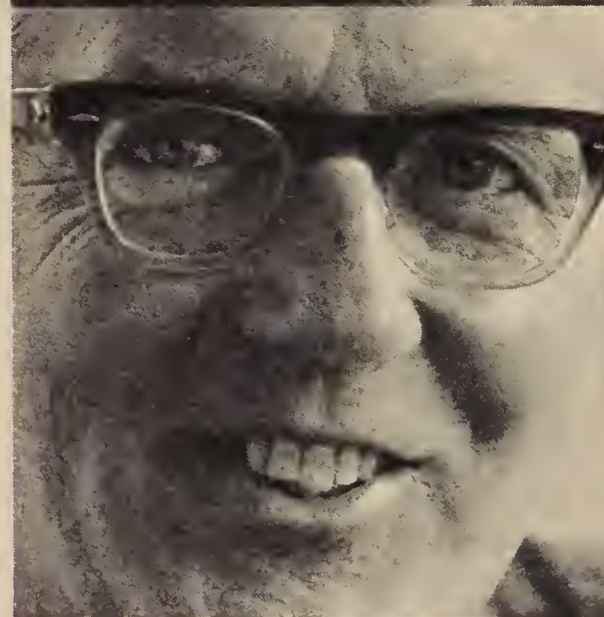
"Agway, too."

**"They contract
the whole job?"**



**"Everything from the
planning and blueprints
right on through
to erection of the
building and silo
and installation of
all equipment."**

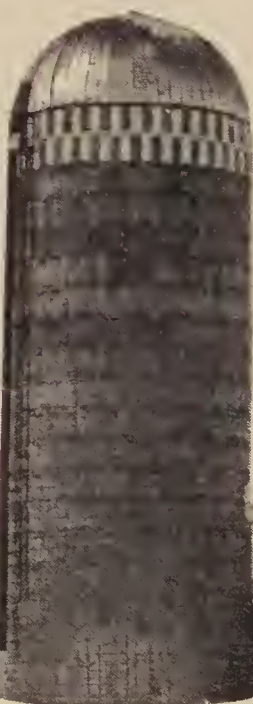
**"How did
it turn out?"**



**"Everything is working
fine and Agway has
local service for
every piece of
equipment in my barn."**

"After my barn burned down I found that Agway was the only place that could give me the kind of modern free stall system I needed, planned and put together by people who are interested not only in buildings and automation, but also in the success of my farm operation as a whole. And they know the kind of farming my son and I want to do in the future."

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At Mansfield, Pennsylvania, the Lewis Barden-Agway planned and built 102-cow, free stall barn, with Craine Silo, automated silage feeding system, milkhouse for two bulk milk coolers, and 4-on-a-side-herringbone parlor.



Agway

FARM AUTOMATION SERVICE



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by Horace Smith*

VEGETABLE GROWERS operating muckland in the Northeast have experienced a revolution during the past 15 years with the development of selective weed control chemicals for several of the major crops.

The Orange County, New York, muckland, located largely in the Florida-Pine Island area, has in excess of 12,000 acres of muckland in production. Onions are the principal crop . . . more than 8,000 acres in '65 . . . and there are also extensive lettuce and celery plantings.

Present-day chemical onion weed control is truly a marvel, as witnessed by the increasing onion acreage, with single rows 10 inches apart, or twin and triple rows 4 to 10 inches apart that do not permit mechanical cultivation with available equipment.

CDAA and CIPC

Onion weed control on muckland starts at emergence (just when the onions can be "rowed"), usually spraying with a combination of 6 quarts of Radox (CDAA) plus 4 quarts of chloro IPC (CIPC) per acre over the entire field area. Rains in excess of one-half inch soon after application can result in reduced seedling stand. However, this risk is minimized by timing the first application as close to come-up as possible rather than at seeding time.

Most weeds that are not over one-half inch tall at the time will be controlled by the combination. CIPC is particularly effective alone or in combination with Radox where smartweed, purslane or chickweed are problems.

Granular Materials

At this stage of plant growth the spray is considered to be more effective than granular forms due to a more uniform coverage of the

ground surface. However, a number of farmers wanting to avoid the bother of setting up a sprayer have had good results using granular Radox or CIPC for the first application. Radox, properly timed, controls the broadest spectrum of grasses and broadleaf weeds compared to CIPC. Late applications applied during the late crook stage are not recommended, but have been observed to work quite well if the weeds are not too big.

A second chemical application is recommended . . . timed by the appearance of weeds and usually at the stage when the onion plant has two or three true leaves. Onions are generally considered to be at their weakest point during the flag stage. Most growers will apply granulars after this flag stage . . . usually about 3 weeks after emergence.

Wind Breaks

Growers using grain wind breaks planted between onion rows usually will band spray or band the granules over the row to avoid stunting the desired wind break planting.

Onion weed control after emergence is based on a Radox granule application rate of 30 pounds per acre of the 20 percent material every 3 to 4 weeks until harvest time, with precise timing depending on the soil moisture and temperature as reflected in weed growth. Granular 20 percent CIPC is used in severe weed situations at 30 pounds per acre in addition to the Radox.

Growers should handle Radox very carefully to avoid the intense skin irritation following skin contact with the material. It should be kept in mind that the effectiveness of both Radox and CIPC is aided by increased soil moisture. Rain may leach Radox down into the soil to injure sprouting seedlings.

Potassium cyanate is still used by a few growers with severe grass problems. This

material is used at a rate of 4 pounds in 50 gallons of water per acre applied as a spray directed at the base of the plant when the first true leaf is about 3 inches long. A dull cloudy day reduces the danger of cyanate damage to onions and seems to increase the effectiveness of weed control.

Cornell University has discontinued recommending the cyanate spray for 1966, believing that a combined Radox-CIPC spray directed at the base of the onions is superior. The rates of material can be up to 6 quarts per acre of each, dependent on the weed problem, in 100 gallons of water at low pressure.

Pre-Emergence

Some growers have used Herbisan 5 as a pre-emergence onion weed spray at least 24 hours before onion emergence, at a rate of 2 gallons per acre, with generally good results. It is a contact weed killer, burning the surface weeds, and is not translocated.

Herbisan 5 has been used as a post-emergence spray on onions over the top with varying rates of success. Rates have varied from one-half quart to 2 quarts per acre. On a dull, cloudy day damage to the onions will be minimized. This is not a recommended practice, but has been used effectively in desperate situations, and has also severely damaged some stands as well.

Dacthal has been widely promoted as an onion weed killer. This is true for mineral soil crops, but on muck soil it behaves erratically and is not recommended for use.

In general, Radox is the main chemical in muckland onion weed control . . . backed up with CIPC in severe weed cases. Radox-injured onions exhibit a tendency to develop a loop on the first true leaf which is not to be confused with the normal onion loop or crook stage at emergence. Typical CIPC-injured onions have an abnormally swollen base on the leaf at the point where the bulb will be formed with a reduced root system.

CIPC is not recommended in company literature use on set-grown onions from the time they emerge until they reach the 6-inch or 3-to-4 leaf stage. The emerging set onion tip does not have as much resistance to injury as the onion growing from seed.

In practice, though, the presently recommended Radox and CIPC rates appear to be acceptable on emerged onions (from set or seed) at about any stage of growth, with little or no damage. However, it is still best to try to stay with suggested timing stages to minimize chances of potential damage.

Granules are applied usually with the Gandy applicator, covering from 4 to 16 conventional 15-inch rows as a broadcast treatment. Sprayers are of the low gallonage brush-type boom, equipped with low pressure pumps.

During the past season chemical onion weed control ranged in cost from \$40 to \$75 per acre depending on effectiveness of the chemicals, rate of weed growth, types of weeds growing and whether or not band applications were used.

Lettuce

Lettuce weed control is by both mechanical cultivation and chemicals on the approximately 1500 acres devoted to that crop in Orange County. Cornell University has not recommended chemical control on muck lettuce for several years due to erratic performance of the material. Many growers have found, though, that a light rate of Vegedex (CDEC) applied pre-emergence will give acceptable early weed control, followed by cultivation for the rest of the season.

Many growers use a spray of 2½ to 3

(Continued on page 17)

American Agriculturist, February, 1966

* Associate County Agricultural Agent, Orange County, New York.

Calves up to 48 pounds heavier at 4 months from Purina Research

Until a heifer begins producing milk, she's not adding to your income. That's why it's so important to grow calves fast and bring them up to breeding weight as soon as you can.

Forty years of Purina research with more than 3,300 calves has developed new Purina Calf Startena, which helps grow heifers that may freshen as early as 22 months of age.

Holstein calves raised on Purina Calf Startena average 320 pounds at 4 months of age at the Purina Dairy Research Center. That's 48 pounds heavier than the national average! This extra growth is not just wasted fat, but a real increase in size since calves average 1 inch greater in height at withers.

Why bigger calves with Calf

Startena? An improved energy-protein balance, for one thing. Improved palatability. Vitamin and mineral fortification for sound body growth. An antibiotic for protection against scours.

You may save money by starting calves fast with Purina Calf Startena. Research at North Carolina State University has proved that dairymen can lose \$7.25 for

each month a heifer goes beyond 24 months without calving. So it's just plain good economy to start them fast and breed them for early freshening.

See your Purina dealer for new Purina Calf Startena. It's backed by many years of research to help you give your calves a head-start toward early freshening... and early return of their growing costs.

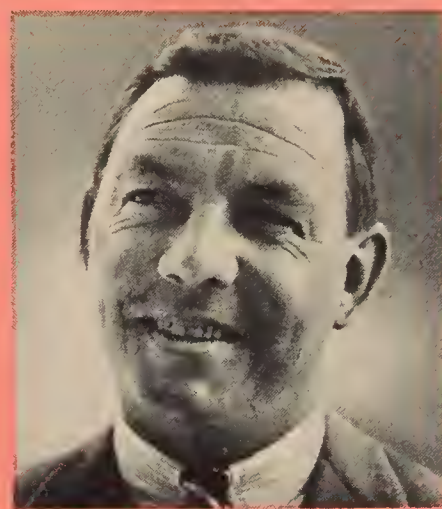


RALSTON PURINA COMPANY • CHECKERBOARD SQUARE • ST. LOUIS, MISSOURI

Holstein heifer calves measure one inch higher at withers at four months of age at the Purina Dairy Research Center.



**PURINA
CHOWS**



DAIRY FACTS

by Dr. J. P. Everett

Manager, Purina Dairy Research

When does a calf become a heifer? This question resulted in many interesting discussions among my former students at North Carolina State. Students in reproductive physiology maintained that the start of regular estrous cycles introduced heiferhood. Nutrition majors argued it is a gradual change as rumen function begins.

Without resolving the calf-heifer question, recent experiments have shown that a good quality calf starter does more to initiate rumen fermentation than hay. (Research also shows that prolonged feeding of milk or milk replacer slows rumen development.) Although feeding hay early in calfhood will not kill the calf, experiments in the Purina research herd show that this practice does decrease gains (at a time when gains are most efficient) and frequently results in more digestive upsets.

In view of the small amount of hay eaten, it is questionable that the cost of hay racks in individual calf pens can be justified.

Controlling Scours

Scours is a major calfhood problem. Most cases of diarrhea in young calves are caused by common bacteria.

Minimize the problem by seeing that:

- (1) Calves receive colostrum for the first three days.
- (2) Careful sanitation is practiced. (This includes cleanliness in the maternity stall and in the calf pen—as well as avoiding contamination in feeding equipment.)
- (3) Chilling is avoided. (Wet bedding—combined with cold—is a major offender.)
- (4) Calves are not overfed milk replacer.

Importance of Nutrition

When calves scour it is common practice to reduce the amount of milk replacer fed. This is a questionable practice (assuming the calf is not being overfed) since it reduces liquid intake—and dehydration is the major cause of death from scours.

When a calf is scouring nutrient requirements are increased, as they are during the course of any infectious disease. In our herd we continue feeding Nursing Chow at the recommended level and keep water available.

Good feeding and management pays off: Livability among 3,300 calves at the Purina Calf Research Center has been 97 percent in nearly 40 years of continuous research.



Sunset Cosmos



Bright Butterflies Snapdragons



Red Monarch Sweet William

Flowers for 1966

by Nenetzin R. White

EVERY YEAR at this time my spirits soar with the advent of the new crop of All-America Flower Selections. Every one of these must be outstanding to merit an award, as they are thoroughly tested in 26 trial grounds from Canada to Mexico. These seeds are available this year, and they must be grown by the originator from breeders' select planting stocks for the first three years after introduction. Order them by variety name.

There are six selections for 1966 — a pansy that is quite new and different; the first and only red Klondyke cosmos (the third gold medal award winner in the past 27 years); a red annual sweet william; an open-faced snapdragon; a sky blue, cushion-type verbena, and an early, large chrysanthemum-flowered marigold. Following are descriptions of these six All-America selections.

Cosmos "Sunset," winning the tremendous gold medal award, is an annual of brilliant vermillion that blooms all season. The scarlet-red color is a true color break from the usual gold or yellow. This strong color comes through well in semi-double 2-inch blooms on 12 to 15-inch wiry stems. The bushy plant is approximately 3 feet tall with a 18 to 24-inch spread, and the blossoms are borne freely over a longer blooming season than most others. It is a Japanese innovation and performed beautifully in all areas. It can be used for garden display or for cutting.

Snapdragon "Bright Butterflies" is a really different plant. Instead of being tubular throated, it is open faced, like the dwarf Peloric or Juliwa type well known in Europe. This makes Bright Butterflies lots showier — the 12-inch stems blooming with long spikes. The plants are stocky and base branching. If cut

back after blooming or cutting, they will produce a second or third crop of flowers during the season.

Sweet William "Red Monarch" is an annual. Sow in early spring for summer blooming, or in the fall for spring blossoms. The plants will grow about 10 inches tall when sown in the spring and about 16 inches from an autumn planting. Rich scarlet-red flowers are a new color breakthrough; white stamens are in well-rounded clusters on erect, healthy green plants. You will find them useful for bedding flowers or for cutting.

Marigold "Spun Yellow" should receive instant acclaim, for marigolds are among the four most popular and widely planted flowers in North America. Spun Yellow is the bright yellow companion to the 1960 award winner, "Spun Gold." This newer variety seems to be earlier and longer flowering, in the same 12-inch height. Rich green foliated plants have large chrysanthemum-flowered blooms almost covering the plants. Stems are long enough to cut, and the entire plant lovely enough for beds.

Verbena "Amethyst" (called mid-blue) is a new sky blue, dwarf, compact verbena. Rather flat flower clusters about 2¾ inches in diameter nearly blanket the cushion-like, 10 to 15-inch spread of 6-inch plants. Blue flowers are always high in demand, and this dwarf plant should lend itself well to edgings or for low beds.

New Pansies "Majestic White with Blotch" and "Giant Majestic Mixed" have 4-inch blossoms on vigorous plants about 7 inches tall and are exceptionally free blooming, even in hot weather. Pansy Majestic White with Blotch is the first hybrid pansy winner and is includ-

ed in the "Giant Majestic Mixed." These have striking assorted colors and extra large blossoms with hybrid vigor.

There are several other lovely new flowers for 1966 that are not All-America selections. One is Cleome Rose Queen, a charming new variety of an old favorite. Its color is deeper, brighter and less inclined to fade than Pink Queen. Like all cleome, it is easy to grow, and the 3½-foot plants make a perfect background for a mass planting because of their long blooming season. It is also lovely in the center of an oval or circular bed, with shorter plants around it.

Another new annual is Petunia Red Cap, an early blooming multi-flora. Its low-growing plants are dark green and vigorous with brilliant red blossoms.

Blue Blazer Ageratum is an upright, compact and bushy plant with an abundance of soft powder blue flowers. This F¹ hybrid is the earliest and most uniform ageratum and should eliminate the necessity of growing ageratum from cuttings to insure uniformity.

Try some solid color plants in combinations, such as Marigold Spun Yellow with Verbena Amethyst, or try some true pink flowers with bright reds. This has been a rather good color combination in women's clothing and should also be good in flowers. The green Ziunia Envy of 1965 should be wonderful with a blue flower. The clean yellow Marigold Spun Yellow would be mighty pretty with deep purple petunias.

Nature rarely makes color mistakes, and we can indeed glorify her works with some of our own color ideas. Be sure to use large enough solid color groups to be effective. Happy gardening!

Photos: Joseph Harris Co.

Amethyst Verbena and Spun Yellow Marigold



F₁ Majestic Pansies, Mixed

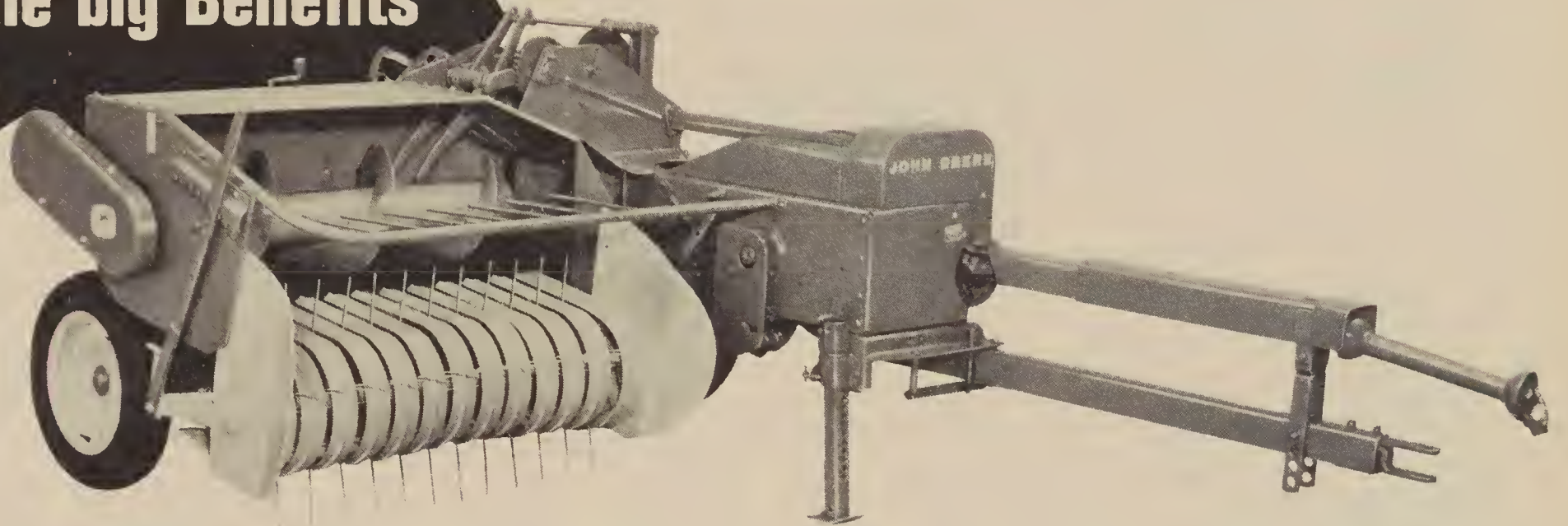


Blue Blazer Ageratum



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you're missing
in
your baler ...**

**... are in a
John Deere Baler—
right along
with
the big Benefits**



With today's balers having so much in common, it's the little things that make the big difference. John Deere Balers are a better buy because they have these little things that count. For example . . .

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John Deere Balers have a long tongue. This gives you

better visibility of the pickup. Team up the long tongue with the offset pickup and you'll be able to make full use of pickup width . . . without running over the windrow.

Go John Deere and you'll get a baler with a heavy, large-diameter flywheel. Weight and the weight distribution give the flywheel more carry-through so the plungerhead can slice through tough spots with less power.

See your John Deere dealer soon and have him point out all the little features (and the big ones) in a John Deere Baler that make a big difference. The Credit Plan makes it easy to own a baler from *The Long Green Line*.

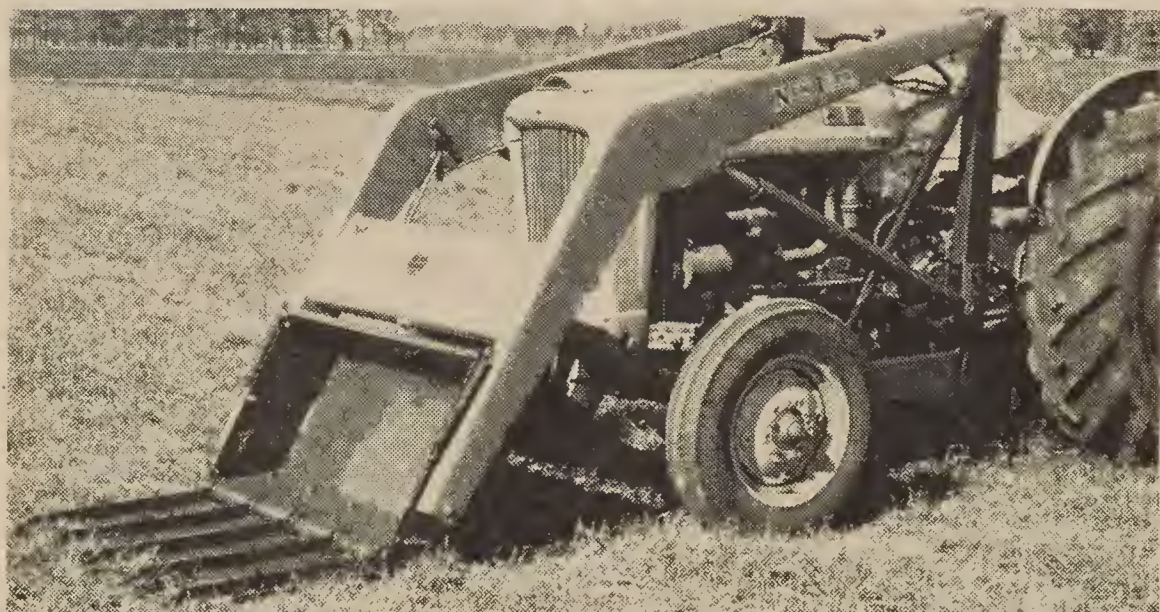
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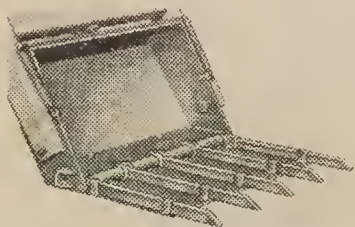
BIG, TOUGH

LOW COST

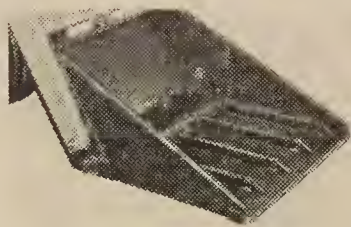
LOADER!



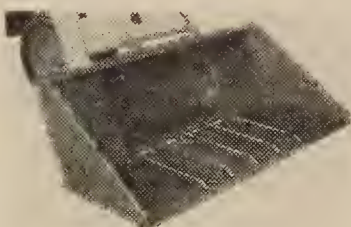
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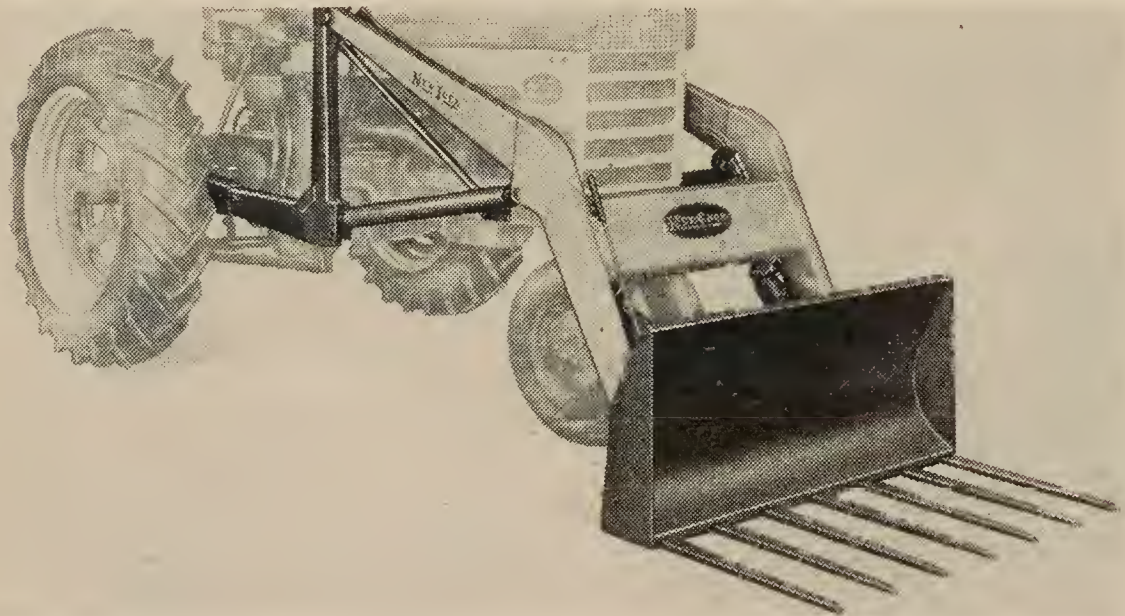
Tine bucket with tine cover. (Standard equipment)



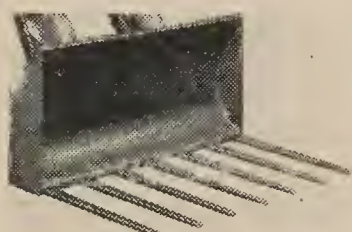
Conversion to 40 in. wide bucket. (8 cu. ft. capacity)



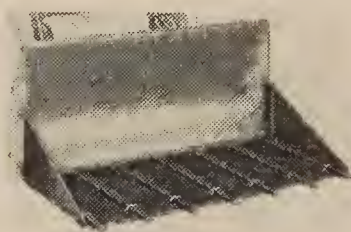
Conversion to huge 80 in. wide bucket. (17 cu. ft. capacity)



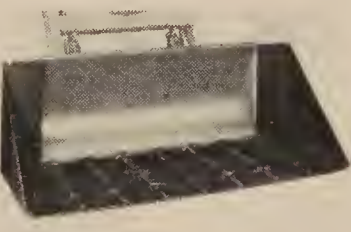
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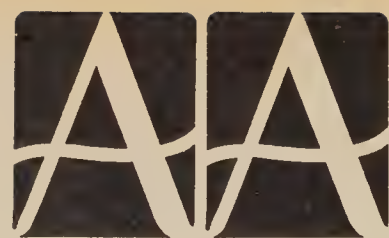
- ☐ LOADER WITH HYDRAULIC-CONTROLLED BUCKET
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FARM DOLLAR GUIDE

MILK PRICE to Northeast farmers for 1966 is expected to be up a little (maybe 5 cents a cwt.) feed cost down a little, but expenses up some ... indicating a little upward change in net income, but with best chance for increase depending on lowering cost of production per hundred. Cornell survey shows cost of production per cwt. in some recent years varied by farms from \$3.75 to \$7.12!

ANOTHER BLAST AT CHOLESTEROL in animal fats, including dairy products, is scheduled to be released by the American Heart Association in February. Another example of need for farmers to support organizations like American Dairy Association and National Dairy Council with funds for research and publicity to tell other side of story. Medical profession is far from being in agreement that animal fats are bad, but AHA recommends substituting vegetable fats for animal fats "whenever possible," and to start doing this "early in life." Better be concerned about this if you're a dairyman or livestock feeder.

RECENT TESTS at Iowa show better yields of corn, oats and alfalfa when soil tested pH7 than when it tested pH6.5.

FARM PROGRAM. Signup for participation in wheat and feed grains programs will be some time in spring. Wheat growers have been notified of 1966 allotment based on national acreage of 47.8 million. Secretary Freeman says growers who participate will receive higher return per bushel than under '65 program.

Where grower signs up for wheat and feed grains, he can substitute one for the other on allotted acres; also wheat for oats. Farmers can voluntarily divert 50 percent allotment to conserving uses, or if wheat allotment is 21.7 acres or less, or corn allotment 25 acres or less, he can divert all of it. Your county ASC office will answer your questions.

RURAL APPRAISAL MANUAL is available for \$7.50 per copy from Harold F. Borman, P.O. Box 295, DeKalb, Illinois 60115. It's a publication of the American Society of Farm Managers and Rural Appraisers. Good book for appraisers, assessors, anyone interested in determining rural real estate values.

CORNELL ECONOMISTS point out that one of the most important farm management decisions concerns credit. Should a farmer use credit to mechanize or to expand, and if so how much? Volume of farm credit has been growing, and will continue to grow. However, U.S. farmers still own around 84 percent of investment.

STUDY BY USDA and the American Dairy Association indicates that an increase in milk promotion costing producers 15 cents per year more increased returns by \$1.68 for each dollar spent.

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Dunkirk—Gunther's Service
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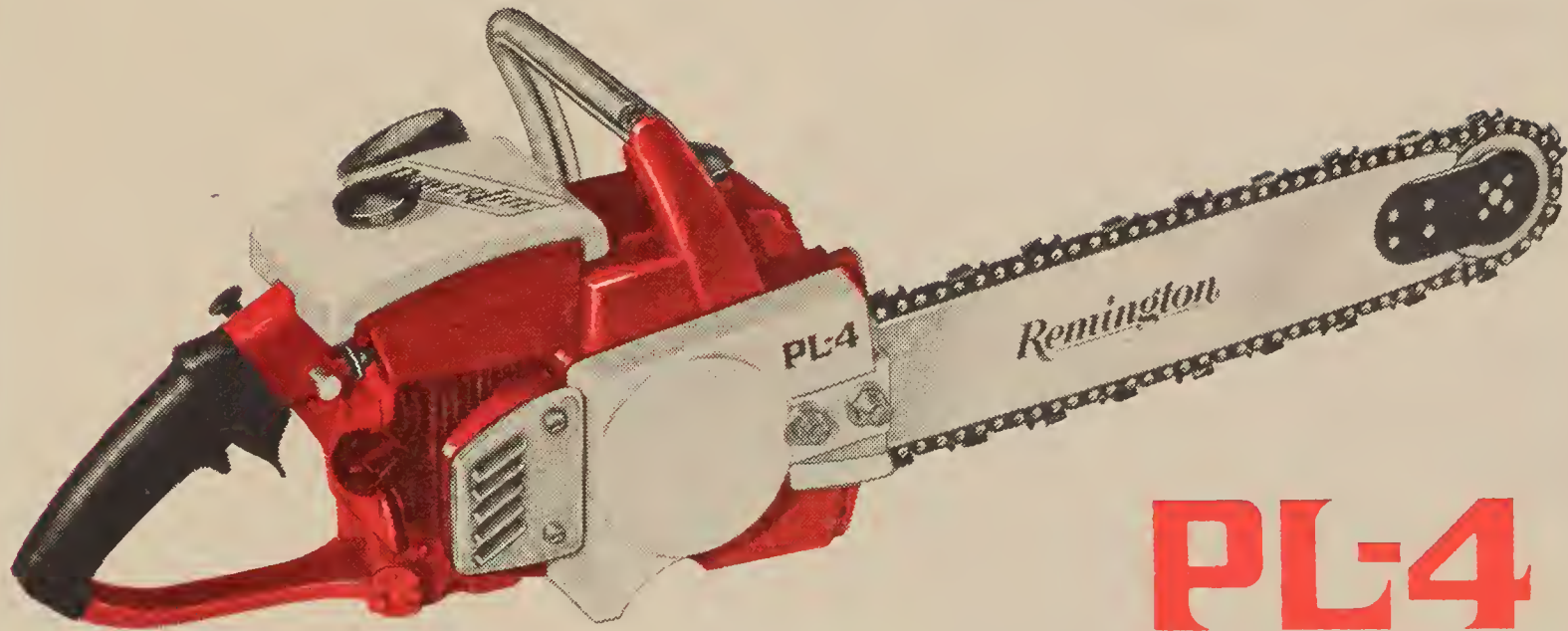
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Elizabethtown—B & H Saw Sales
Elma—Mike's Bicycle Shop
Elmira—Keller's Saw Shop
Elmsford—Stillwell Equipment
Essex—Lester's Service

Fabius—Fabius Hardware
Falconer—Schutt's Saw & Mower Service
Flushing—Flushing Saw Shop
Ft. Johnson—Jim's Garage
Fort Plain—Duesler's Garage
Ft. Plain—Hallsville Farm Supply
Freedom—Mc Kerrow Bros.
Freeport—Freeport Equip Sales & Svc.

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Glen Head—Glen Head U-Rent
Greenville—Greenville Farm Supply

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Pine Island—Roy Brothers
Pleasantville—C. V. Pierce Co.
Port Jefferson—United Rentals
Port Jervis—Rowe-Hendrickson Saw Filing
Port Washington—Precisioneer, Inc.
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Rexford—Rexford Small Engine Shop
Richfield Springs—Beadle & Co.
Riverhead—Rolle Brothers
Rochester—Swinging Mower
Rome—David Teuscher
Roosevelt—Sochackles Garden Center
Rosedale—A & F Tool Rental
Salem—George Jolley
Saranac Lake—Keough Marine Sales

Schenectady—Thruway Engine Clinic
Schuylerville—Nelson Pratt
Selkirk—Hillmann Bros. Equip. Co.
Sharon Springs—Edgar Handy Garage
Sldney Center—Jess F. Howes
South Glens Falls—Rt. 9 Motor Svc.
Speculator—Tracy Saw Sales
Spencer—Simcoe's Garage
Spring Valley—Clarkstown Equipment
Staten Island—Trimalawn Equip. Co.
Stone Ridge—George Von Barga
Syracuse—Syracuse Farm Supply Corp.
Thendara—Bob's Gulf & TV Svc.
Theresa—Pete Giltz Implement Co.
Trumansburg—Maurice Bowers
Tupper Lake—Eugene Fortier
Vails Gate—Vails Gate Rental Mart
Vermontville—Mac's Service
Walton—Russell's Sales & Service
Walworth—Duell's Garden Store
Waterloo—Finger Lakes Equip. Co.
Watkins Glen—Glen City Garage
Weedsport—Blumer Supply
Wellsville—Chiavetta Bros., Inc.
West Leyden—Stanley Freeman
Westbury, L. I.—Contractors' Supply Corp.
West Shokan—West Shokan Garage
Whitney Point—George W. White
Worcester—Edward R. Johnston

NEW JERSEY

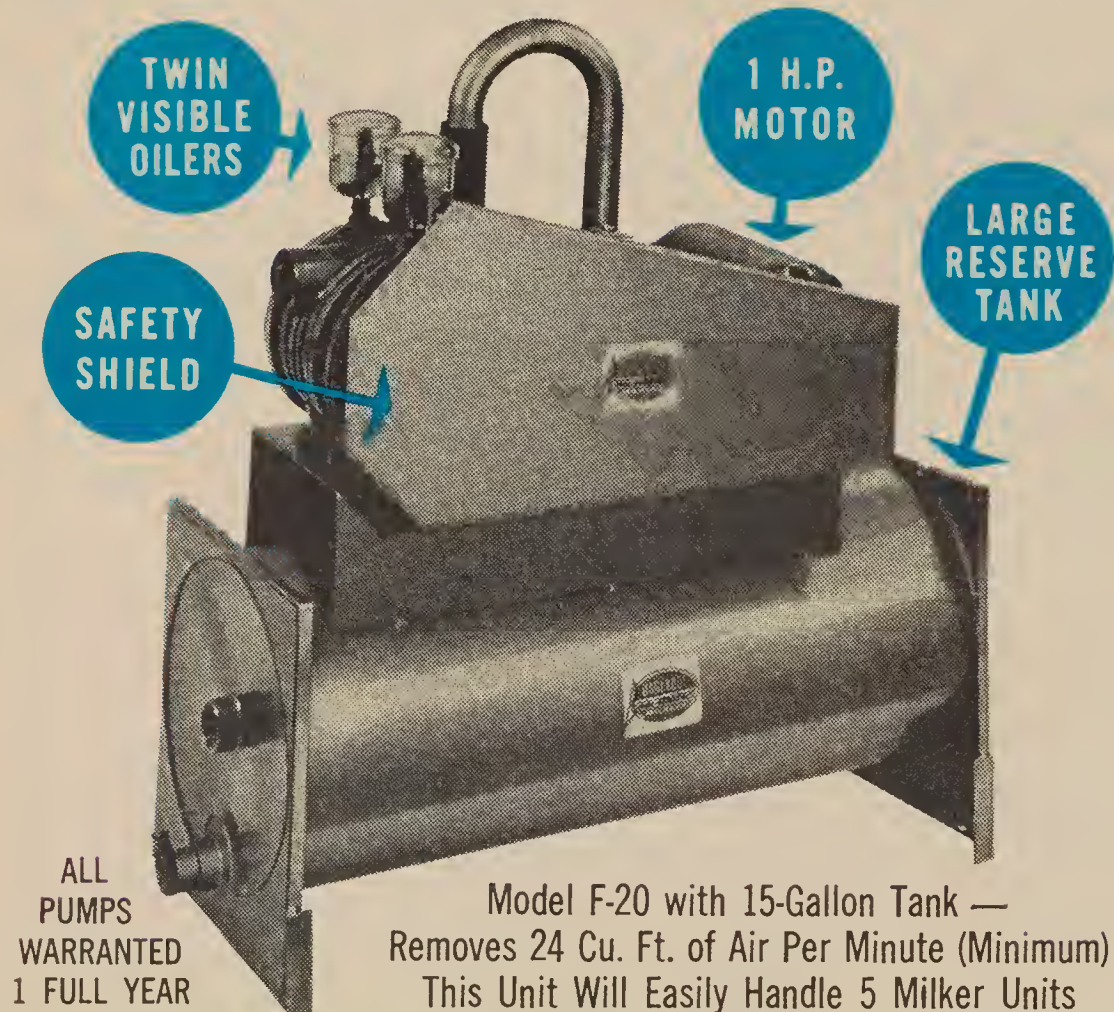
Belmar—Heyniger Brothers
Blairstown—Blairstown Electric Co.
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Elmer—Delbert Robinson
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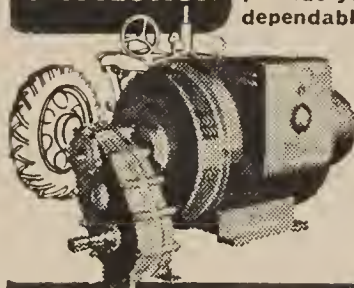


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SO WHAT'S A LEUCOCYTE?

A LEUCOCYTE is a white blood cell . . . really one of the body's soldiers that do battle with any foreign substance that enters the body . . . whether it be bacteria, virus, fungus, or some toxin. The blood stream is the troop train that brings these soldiers by the millions to any place in the body where an invasion is underway.

In the dairy cow, when any kind of irritation, injury, or infection damages the udder tissue, large numbers of white blood cells are rushed to the location of the trouble. Therefore, the number of leucocytes found in milk is a good index of the intensity of the battle being fought.

"Normal" Count

There are differences of opinion among the experts concerning what constitutes a normal leucocyte count. However, the regulations that went into effect last November 1, approved by New York State and New York City health authorities, have five classifications of the Modified Whiteside Test that will be used to check for abnormal milk. The classification "negative" means that there are 325,000 or less leucocytes per

cubic centimeter. The MWT results range on up through trace, 1+, 2+, and 3+ in which there are 3,325,000 or more leucocytes per cc. The two most common causes of a high MWT reading are: (1) mastitis and (2) milk from recently fresh or drying-off cows.

Quarterly

Under the new regulations, a herd having a test of 1+ or less for three months in a row will then be checked only every third month. If a quarterly check shows a reaction of 2+ or higher, the herd will have to go back to monthly testing.

New York farmers should remember that many receiving plants in the State have a permit to ship milk or milk products into New Jersey and Pennsylvania. Unless these states go along with New York's new regulations, some dairymen will have to continue having annual herd physicals as well as being checked by the MWT. There is nothing new, though, in having to be inspected by health authorities from several states . . . it is just a part of the milk marketing structure in today's highly mobile market.

COMPLETE FEEDS

FOR DAIRY CATTLE

COMPLETE FEEDS, with roughage and concentrate blended into a single ration, have been much in the news of late on the dairy front. Professor H. H. Olson of the Department of Animal Industry at Southern Illinois University, summed up the present situation with comments that formed the background for these points. These remarks assume that a single complete ration is being fed free choice so that feed is in front of the cows all the time.

1. Cows will definitely eat a complete feed . . . and lactating cows may be expected to consume daily 3 to 3.5 pounds per 100 pounds of body weight.

2. The complete feed should contain at least 30 percent roughage to avoid lowering the percentage of milk fat, and to avoid digestive disturbances.

3. Milk production is usually increased over what would be the case with conventional methods of feeding. Since there is normally no change in percentage of SNF, the increased milk production usually results in a considerable increase of daily SNF production.

4. The roughage should be coarsely ground to avoid depression of milk fat tests and the incidence of digestive upsets. The coarseness of the roughage seems more important than its fiber content; fiber has been lowered to 10 percent in complete feeds containing hay . . . without lowering milk fat percentage.

5. Mild bloating sometimes occurs with some cows when they are fed complete feeds free choice

that contain less than 40 percent roughage.

6. Rations lower in roughages than provided by conventional feeding methods need to be carefully supplemented with all the essential minerals and vitamins.

Although somewhat noncommittal, Professor Olson reports that the efficiency of conversion of total digestible nutrients (TDN) to fat corrected milk (FCM) seems to be comparable between feeding complete rations and the conventional methods of feeding.

Complete feeds offer the dairyman the possibility of a fully mechanized feeding system, similar to that available to the hog producer or the poultryman. This involves having one basic ration in front of the animals all of the time, and it looks as though more and more dairymen will begin experimenting with this kind of feeding as herds grow larger and the pressure for more production per man grows.

GOOD P.R.

One of the best written information pieces about modern agriculture that we have seen lately was a recent issue of the "Parcelman," published by the United Parcel Service of America. This particular issue was entitled "Today's Farmer: Modern Businessman in an Age-old Vocation." Written in an easily readable style and well illustrated, it presents an accurate picture of modern farming . . . even though it must of necessity be briefed within its limits of eight pages. Anyone desiring additional copies should write to: UPS Parcelman, Room 860, United Parcel Service, 643 W. 43rd St., New York, N.Y. 10036.

American Agriculturist, February, 1966



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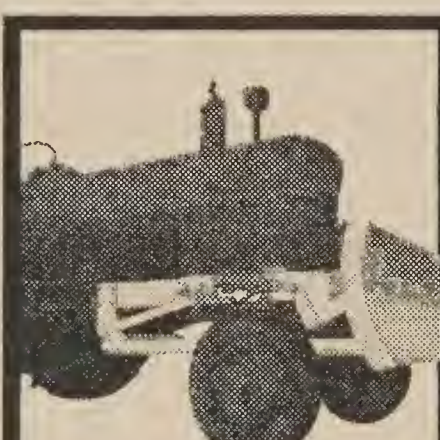
■ Farmers who have been planting Funk's G-Hybrids have grown accustomed to the kind of extra-bushel yields that make it almost a pleasure to run a corn picker. Some of them are even inclined to brag just a bit about the size of the corn crop they brought in this year.

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MONEY TALKS!

By Amos Kirby
New Jersey Editor

Who says that money doesn't talk? The Glassboro Labor Camp has some convincing proof that the bonus agreed on in the 1965 Puerto Rican labor agreement paid handsome dividends to both workers and growers.

Last spring the Garden State Cooperative Association, the Glassboro Service Station, and others who had a part in reaching an agreement with the Puerto Rican Department of Labor, included a five cents per hour bonus for all workers who stayed until the end of the harvest season.

Some went home in June after earning about \$500 to \$600, and of course were not entitled to the bonus. Those who stayed until the last apple was picked and the last sweet potato in storage, learned just what that trifling nickel amounted to as a Christmas bonus.

According to Joseph Garofalo, manager of the Camp, over \$100,000 in cash was paid out as bonuses to those who remained until the fall work was completed. Bonuses per worker ranged from about \$50 to upwards of \$150, with an average of nearly \$70 for the 2,007 workers who qualified.

Not all growers approved of the bonus, but those who have looked ahead agree that it will be a guarantee of workers returning in 1966. News spreads fast even among the workers, and that extra money on top of earnings . . . in some instances earnings went close to \$2,000 per man . . . may give as much incentive to returning as the \$30 hog market does to producers who are stepping up production for the 1966 markets.

The bonus paid off in another way, too. Despite the fact that there was an actual labor shortage in the fall of '64, there was sufficient help to harvest the crops in 1965.

AN EXPANDING MARKET

Looking for something new to grow on those acres that have been demanding a lot of high-priced farm labor or low net returns? Austin N. Lentz, Extension farm forester at the Agricultural College, suggests growing Christmas trees. This is no 60 to 90-day crop, but in terms of returns, investment, and labor it has little competition.

According to Forester Lentz the market is here. It is growing, and New Jersey has the soil, the climate, the know-how, and the market. Customers like to cut their own trees, and this means no harvesting costs; the consumer will do the work, pay a retail price, and feel he has a bargain in satisfaction and pleasure.

Mr. Lentz tells of his experience on his own small planting of entire families coming out to cut their

trees, taking pictures from start to finish.

Styles in Christmas trees change. Preference now is for taller trees that reach to the ceiling, and the extra years' growth on the larger trees makes a satisfactory return on the investment. There's a new market, too, for smaller trees with trailer owners.

Ideal Trees

The trees mostly in demand are the white and blue spruce, Austrian and white pine, and the Scotch pine; all are adapted to New Jersey conditions. About 350 farms scattered over the State are growing Christmas trees. They average about 1,000 trees per farm, and the market can use all that will be grown in the next decade. From what can be learned, the local supply is only 5 percent of the market.

NEW STUNT

Watering peach trees in December is a new stunt, an innovation in parts of Camden-Atlantic-Burlington-Gloucester counties. In the important Camden-Atlantic-Burlington peach areas, where thousands of peach trees have died in the past two years, winter irrigation of trees has been recommended. Leslie Miller, Camden County Extension agent, who heads up a committee that has been studying the peach tree decline, after serious consideration suggests that growers water their orchards.

In an interview with Ray Battle, Gloucester County agricultural agent, he said that the soil is bone dry in the root zone of established orchards. Midwinter irrigation is recommended to supply enough moisture to carry the trees through the winter. On newly-set trees (1965 spring plantings) the water shortage has been so severe that growers are urged to apply 5 to 10 gallons of water per tree to prevent root dehydration.

DAIRY FEED COSTS

Edward Oleskie, dairy specialist at the Agricultural College, comes up with a guideline for estimating feed costs. In a study of the reports of the Dairy Herd Improvement associations, he finds that feed costs go down as the herd average increases.

In an examination of the records of 23 herds with an average milk production of 10,047 pounds, the feed cost was \$2.75 per hundredweight. At the top of the list were 11 herds with an average production of 15,753 pounds . . . and the cost was down to \$2.26 per hundredweight. The explanation is that the amount of feed required for body maintenance does not increase with the production level.

American Agriculturist, February, 1966

RETURN OF THE WHIPSOCKET

IN VIEWING culture one may often look far ahead by merely reflecting backward. Book reviewing is a case in point, and the Deacon's Document of Wired Woodshed Wonders is a good volume to start with. The Deacon, as many faithful listeners know, broadcasts from Station WSYR at Syracuse, New York.

Today we would discuss the whipssocket, to be found beginning on page sixty-eight of the volume mentioned. And, indeed, to be found in some most unusual places where a whip was never intended, but a socket . . . yes.

Once Numerous

This is the whip of the fancy name and family colors, the great leather-bound rattan that once hung from the notched iron ring in the ceiling of every general store. The whip had to have a holder, and so the first socket was born. This was long before the electric light socket or the socket wrench, but both of the latter take their meaning from the former. By the barrel or by the dozen, these whipsockets are reappearing in the market place.

The whipssocket has been introduced as the ultimate in the holding of Christmas trees. By the simple process of boring a hole through the parlor floor, this little wooden tube is inserted so that its stiff upper lip holds the top just at the floor or carpet level. The tree is then inserted, and it can remain there throughout the holiday time with no fear of tipping.

When the tree is removed, the socket is also removed and in its place a small cap matching the grain of the floorboards (or the carpeting) is placed until another holiday time. But like wallpaper, the catalog warns, this floor boring should be agreeable to all since it is "sort of" permanent.

Holding Flags

The whipssocket in this mid-season is used for holding the flag at curbside in a fairly permanent installation. It will also find its way into the stadium and baseball park

for holding umbrellas, for holding wickets on every croquet court, and for holding the tennis racquet while a player goes to mid-court for ceremonies, toweling or refreshing.

Whipsockets, the catalog testimonials reveal, are also on order for the next Winter Olympics to be used as holders for the course markers for slalom ski racing. They are already in use, it seems, on many of the finer ski slopes of the East.

In winter sports, cold hands are frequently an irritant. The whip-

socket, then, can be attached in pairs to the skier's parka and once unlimbered anywhere on the slope or trail they are placed gingerly in the snow to hold one's ski poles. This enables the skier, the catalog says, to visit with friends or make a visit to the lodge, lounge or lunchroom.

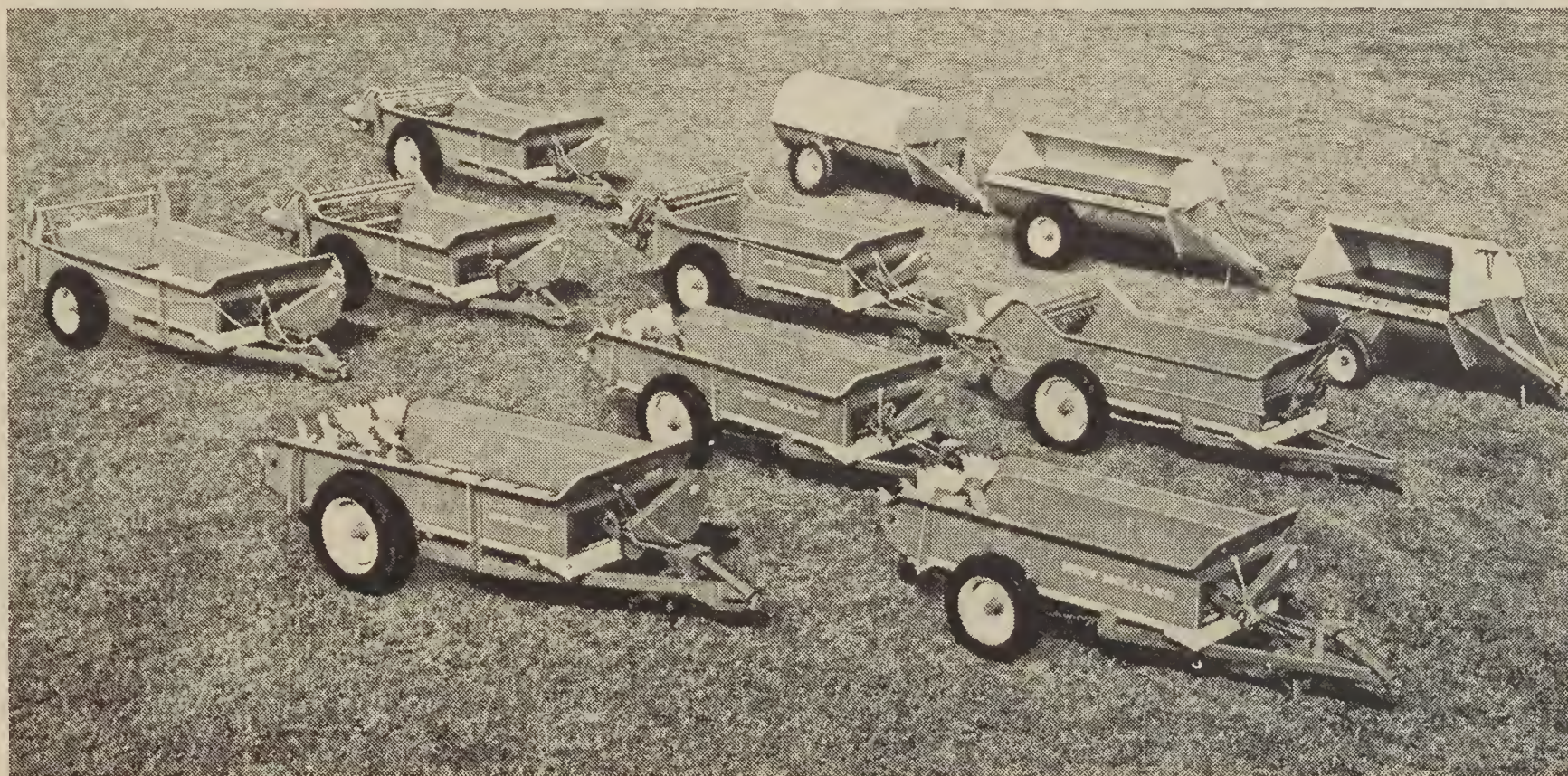
Our information explains that these new whipsockets are wooden. And they are of natural color, like the whiffletree. They are not covered with any paint or other matter. And they lend themselves well to coloring, a practice strongly recommended in the catalog. This artistry is left entirely to the home-grown painter, and becomes another way for him to express himself.

The catalog advises that the sockets are available by the barrel, by the gross or the dozen. They are new, not something plucked from discarded buggies and cutters, although much searching has been done for such by groups of younger people . . . particularly through the repainted creations of transportation on the lawns of suburbia. In this sector the catalogers found the whipssocket being used as a jigger for switchel.

Editor's Note: The Deacon's "Document" is merely a whimsical title for his vivid imagination and the information sent to him by listeners. If you want to contact him, write to Mr. Robert Doubleday, Station WSYR, 1030 James Street, Syracuse, New York 13202.



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NH NEW HOLLAND

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HONEY EGGS FRUIT

"I WANTED TO PAY CASH FOR MY BIKE WITH MY EARNINGS BUT MY DAD SAID IT'S TIME I LEARNED MAKING MONTHLY PAYMENTS LIKE EVERYBODY ELSE."

ANIMAL ALLERGIES

When the phone rings long before daylight on a cold February morning, the first thought that enters my mind is, "I hope it isn't a 'whethers.'" Luckily, it seldom is . . . but chances are the voice on the phone will be excited, and the cow in trouble will be one that has just been discovered with milk fever or calving problems.

If the phone rings a little later, say at 6:30, and the voice is excited, it is either a late riser (for a dairy farmer) or the trouble is something that just happened. A

case of hives or urticaria often is the reason for an excited call just after feeding in the morning; to an owner or herdsman who has never seen this in a cow, it can be alarming.

Urticaria, or hives as it is commonly called, is said to be caused by an allergy . . . that is, the body reacting to something that this particular animal is sensitive to. We all know of certain people who break out in a rash if they eat . . . let us say tomatoes or strawberries. A cow doesn't show a rash, but

her skin becomes edematous . . . that is, it swells and becomes thick in places. The first spots noticed are the eyelids, lips, vulvar lips and anal region. Later, "welts" may appear on the udder, back and sides.

Hurry!

Hives can be seen any time of the year, but it seems that in our practice we see more in midwinter on barn feeding. Very often the swellings disappear as rapidly as they come. I always remember the advice of one old veterinarian: "When a horse has hives, hurry as fast as you can to get there, or he will be better before you reach him!"

Sometimes, however, the reac-

tion will become more severe, the breathing passage in the nostrils will become clogged, and the animal will be in danger of suffocation; in other cases a prolonged case of urticaria will lead to abortion.

Very often a cow will start to eat her silage or grain, then suddenly stop, begin to cough and slobber, and her eyelids will begin to swell all in a matter of what seems like seconds. This sort of case will alarm even the most easy-going farmer if he has never seen one before.

Possible Causes

There are as many possible causes of urticaria as there are feeds and cattle to eat them. It is supposed that certain weeds in silage or hay, or certain molds in grain cause allergies in certain cows, causing the reaction. At times a given individual cow will have hives off and on all of her life. More often it happens to one cow in a herd and is not repeated.

There is one specific cause that I have seen perhaps ten times in my life. This is a case of urticaria a day or two after stopping milking a cow when drying off. This is said to be caused by a cow being allergic to her own milk when she starts to reabsorb it. This can be a problem, and in at least two of the cases I saw the animal did it each year as she was starting to be dried. Milking out the udder usually relieves the cow . . . but in two cases the cows had gotten so bad that abortion occurred.

Certain individuals are allergic to certain drugs such as penicillin, or biologics such as shipping fever bacterins. This type of reaction can be mild, or it can be fatal.

Treatment, if needed at all, usually consists of using adrenalin, antihistamines, laxatives, and in some cases calcium gluconate intravenously, or cortisone or ACTH.

Farmers who have seen cases of hives are not as worried about them as those who have never seen one. I would suggest that if you have a cow . . . or horse . . . develop hives you call your veterinarian . . . not necessarily to come but to alert him as to what is going on, and to seek his advice. Unless he happens to be coming to your place for some other reason, he might suggest you wait an hour or so and see if the animal gets better by itself. In the meantime, if she begins to get worse, or has a difficult time breathing, he would want you to call him back to come immediately.

Once in a while you will be able to ascertain that a particular feed (citrus pulp, for example, or trefoil from a certain field) is the cause of the allergy. In such cases, simply avoid this feed for this cow. More often than not the cause will never be known.

Allergies in cattle and horses will never be a serious health problem. Being aware that they exist, and that they are usually not serious, may keep you from needless worry and alarm if you see a case.

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Weed control

quarts of Vegedex per acre over the entire field immediately after planting. Some prefer to use the 20 percent granular Vegedex applied immediately after seeding the crop at a rate of 13 to 17 pounds per acre with equally good results. Liquid forms are generally cheaper per acre than the granular forms.

Good soil moisture is essential for Vegedex to work properly . . . 1/4 to 1/2-inch of rain after application is desirable. Vegedex applied too close to emergence or at too heavy a rate has been observed to severely damage and deform the lettuce seedlings.

Chloro IPC is label approved for use pre-emergence on lettuce; however, it is not recommended by Cornell specialists, and is not used in Orange County.

Celery

Celery weed control involves an application of granular Vegedex after transplanting, often followed by an irrigation to water the material in for most effective action. The 20 percent granular Vegedex is usually used at a rate of 22 to 26 pounds per acre. The spray can be used at a rate of 4 to 6 quarts per acre applied after transplanting.

Radox at 4 quarts (or 20 pounds granular) per acre is approved for use after transplanting. Combinations of granular Radox and Vegedex using 15 pounds of each can also be used. Chloro IPC and combinations with Vegedex can also be used, but in Orange County most celery weed control is with granular Vegedex just after transplanting.

Carrots

Carrot weed control is started using Stoddard Solvent when the carrots and weeds have emerged but are small . . . usually less than one inch tall. The recommended rate calls for 75 gallons per acre of liquid before the carrot gets the size of a lead pencil.

Some growers have found it more economical to apply 30 gallons when the weeds are about 1 inch tall, then possibly another application later before the carrot gets too big. Under some growing conditions the one early application may be sufficient. The material is most effective at temperatures between 70 and 80 degrees Fahrenheit.

Potatoes

Potato weed control on muck soil is still largely by mechanical means. The use of water-soluble and oil-soluble dinitro products (P.E., Premerge, Sinox or Dow General) have been used in a limited way and will give fairly good weed control as long as the soil is not disturbed after application. It has been observed that muck weed control can be more economically achieved with a spike tooth weeder or drag used over the potatoes just as they start to emerge. Unless there is a severe quack grass problem the weeds will be stunted so that subsequent hillings will keep them covered.

Muckland ditch bank weed control is an extensive problem in Orange County due to numerous open ditch drains in the absence of tile drainage. Some growers have minimized the problem by burying some of the ditches to make the fields larger.

Quack grass is generally the worst weed problem in the ditches. It has in the past been considered desirable to only retard or stunt the ditch vegetation, leaving the root system to hold the ditch bank from caving in. Many growers are now coming to see that complete kill of ditch vegetation may be best, and cave-in of the ditch sides is not a serious problem.

Sodium Arsenite (Kill All) has been used for many years as a

contact killer to burn back the foliage. Over a period of time the arsenic tends to accumulate in the ditch bank soil and may be moved into the field when the banks are pulled back. As a result of harmful arsenic buildup in the soil many growers have switched to less toxic materials.

The use of Dinitro (Sinox PE, Premerge), Pentachlorophenol (Penta 10), or Diquat has increased as contact weed killers to burn the foliage back without harmful soil residues.

Translocated weed killers are used less widely. Dalapon has been used for quack grass control in this particular situation with limited success even at 2 and 3

times the label recommended rates. It would be more effective on young plants early in the season. Amino Triazole has been found to do a good job of removing all plant life for up to several years; however, the soil residue problems have not yet been evaluated. The ditch bank rate was one gallon of Amino Triazole to each acre of ditch on experimental basis only.

Growers using any farm chemicals should take the time to read the label precautions carefully regarding hazards to humans, other crops, equipment, and soil residue as a result of exposure to a given chemical. Such hazards, when they exist, are carefully explained on the label.

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ANALYSIS IN DEPTH...

(Continued from page 4)

apportionment laws by the time you read this. In New York, without state legislation authorizing local political subdivisions to reapportion themselves, only counties with charters may do so. Otherwise, the only avenue (for counties without charters) is to be forced to do so by court order.

Crystal Ball

Turning to looking into the crystal ball, it seems that this upheaval may be more disturbing than damaging. Since it is the suburbanite who gains representation, we may well look him over and see what he's going to want.

There is no "typical" suburbanite any more than there is a "typical" farmer, but here are some generalizations that would apply to most people who live in suburbia:

1. He's no wild-eyed socialist. He has too much to lose if there were vast social upheaval and a major redistribution of wealth.

2. He tends to be above the national average in income and education. This means he depends heavily on the advice of experts. Good or bad... depending on your point of view... he's likely to promote giving more weight in government to the counsel of highly-trained specialists in such things as fiscal procedures, water pollution, rural zoning, highways... and farm policy.

3. He and his neighbors don't vote as a cohesive bloc; they're split in many ways on many questions.

It's a pretty safe bet that suburbanites aren't very happy about high levels for farm subsidy programs... particularly those most benefitting already-prosperous farmers. But it's likely they at least won't resist the idea of moving more food overseas... even if it does involve a considerable magnitude of public expenditure. They will back agricultural research and extension... that "expert orientation" coming into play.

Friction

One area of friction between the suburbs and the farm may well prove to be the distribution of the real estate tax burden. Everyone is looking for a tax, or a method of allocating tax burdens, that puts the load on someone else.

Another area of conflict will be rural zoning. As an example, reports from New Jersey reveal that township ordinances are being promoted that would require a permit to keep live poultry anywhere in the township. Farmers have been fined under the anti-litter laws for spilling manure on New York State highways; some dairymen have been forced to fence off creeks so cows cannot pollute them.

Farmers should realistically brace themselves for a rash of legislation that will temporarily squeeze them with mounting costs... mandatory workmen's compensation, perhaps unemployment insurance, and being subjected to minimum wage laws. Changes

here may well come from the federal level, though, so no state or region will enjoy a competitive advantage over another. Diminished rural political muscle will likely jeopardize state right-to-work laws, and hurt chances for repeal of laws requiring labor practices labeled as featherbedding.

There are instances, however, where urban people have shown interest in laws beneficial to farmers. In New Jersey, for example, nonfarm people voted heavily in favor of the constitutional amendment requiring that farm land be assessed on the basis of agricultural use rather than for its potential value as housing or industrial sites. They bought the proposal because an articulate leadership, including many industrial and civic leaders, showed nonfarm people that it was in their interests (as well as the farmers') to retain open land amidst the sprawling Garden State industrial and housing complex.

Out in Illinois, the Chicago-dominated House passed a law designed to protect farmers joining marketing associations from being boycotted or intimidated by processors. Guess what... the downstate-dominated Senate killed it! There are other instances that seem to disprove the fears of farmers and other rural people that urban legislators will ride roughshod over rural legislative objectives.

Less Power

It seems to me that reapportionment already has... and will even more... reduce the political power of people in rural areas. But this need not necessarily be a calamitous thing... if rural people learn to understand and work through urban legislators.

The situation has reversed itself from what has historically been true. With rural domination of either state or local legislative bodies, city folks paid a lot of attention to rural politics. Now rural people must pay a lot of attention to urban politics... and political leaders.

Perhaps this change will force us... humans all, with our personal nests to feather and our own axes to grind... to look more sharply for the greatest good for the greatest number in the long run. This is, after all, one of the most legitimate objectives of a democratic society.

Not Separate

Farm families must recognize that they are an interwoven part of the social fabric... not a separate group. There is nothing about "Agriculture" that makes it inherently a more holy calling than, say, bricklaying or banking.

Farm people, and their nonfarm neighbors of the open country, find it as difficult as do editors to understand the dimensions of the sea of urbanization that continues to engulf the Northeast. But somehow rural people must find the way to continue... and even enlarge... the development of articulate leaders who can express the rural view.

(Continued on page 19)

American Agriculturist, February, 1966

CONCRETE PAVING

HERE ARE suggestions by Professor W. W. Irish of Cornell University for paving with concrete:

— Establish future pavement level and set grade stakes. Stakes less than twenty-five feet apart can be driven so that the top will be at the level of the pavement. Slope of 1/4 inch per foot (2 percent) should be provided for surface drainage. For paved barnyards, use a slope of 5/8 inch per foot (5 percent).

— Choose thickness of paving and fill needed.

Intended Use	Recommended Depth Gravel (inches)	Concrete (inches)
Flagstone base	6	3
Walk, patio or court	6	3.5
Driveway (auto)	8	4
Paved barnyard	7	5
Driveway (truck)	8	6

— Grade 9 to 14 inches below pavement level. Total depth is sum of gravel and concrete depths (see table).

Placing Forms

— Place forms with top edge at pavement level. To prevent forms from shifting, place 1 x 3-inch stakes, 4 ft. on centers along straight 2 x 4's or 2 x 6's. For curved paving, use thinner forms (1/4-inch plywood) and frequent stakes (12 inches o.c.).

For larger areas, form alternate strips 10 feet wide with beveled tongue and groove construction joints to prevent vertical shifting of paving. A beveled 1 x 2 can be nailed to the side form; concrete from the adjoining strip fills this groove to make the construction joint.

Firm Base

— Fill and tamp (or roll) to provide a firm, uniformly drained base. Clean, bankrun gravel is usually satisfactory. For paved barnyards or truck driveways, a thickened edge of concrete (9 x 18 inches) will protect the paving from heavy loads or undermining from soil erosion.

— Estimate and order concrete. Cubic yards needed can be calculated from the area to be covered and depth of concrete selected, remembering that there are 27 cubic feet in a cubic yard. A mix with

6 sacks of cement (minimum) per cubic yard of concrete and 6 gallons of water (maximum) per sack of cement should be used.

Order welded wire mesh 6 x 6, 10/10 for paving over six feet wide.

Three Men

— Arrange labor and prepare screeds. At least three men are needed to place and smooth concrete. Six cubic yards of ready-mixed concrete can be handled in about one hour.

— Soak the fill to prevent fast set in concrete.

— Don't place concrete if temperature is below 30°F. or above 90°F.

— Don't add water to make it flow.

— Don't drop over four feet.

— Don't drop on forms.

— Use a vibrator to remove air pockets.

— Screed and float promptly. This levels the surface, settles aggregate and removes surface air pockets. Use a long handled stiff fiber brush for a rough surface. For a smooth finish, use a power trowel as soon as the concrete is hard enough to stand on.

Dummy Joints

— Cut dummy joints one inch deep and spaced less than twice the width of the paved strip to control shrinkage and allow concealed cracks. A good tool is a

straight hoe to which bolts are fastened for gauging the depth of cut.

— Cover immediately to start slow curing (5 days). Polyethylene film, spray-on curing compounds or damp straw prevent fast drying, scaling and low strength concrete. Sprinkle with water if temperature is above 70°F.

For a detailed booklet, write the Portland Cement Association, 250 Park Avenue, New York 17, and ask for "Pave Your Barnyard With Concrete." If you want information concerning other uses for concrete... spring houses, major farm buildings, watering troughs, etc. . . . write the same address and explain your needs.

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One man

(Continued from page 18)

point in the legislative halls. History reveals many minorities who developed enough statesmanship to sway the majority along paths that ultimately proved to be constructive ones for both.

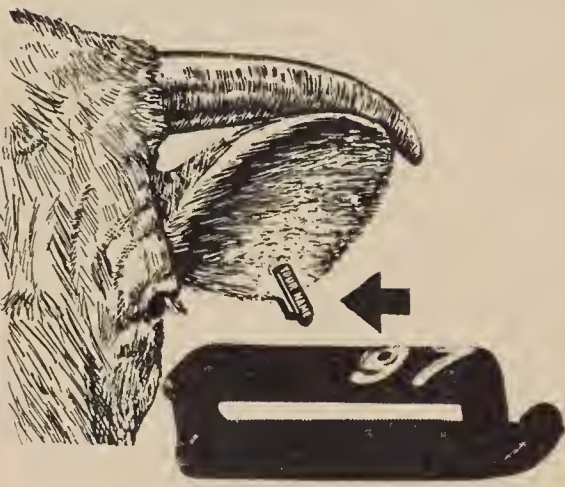
Farm people have enriched our land for generations with abundant food, with capable young people, and with a self-reliance developed in the crucible of necessity. Rather than resist the tides of change, I think they will fare better on the Ship of State if they move with their fellow navigators into the wheelhouse and help shape the future course.

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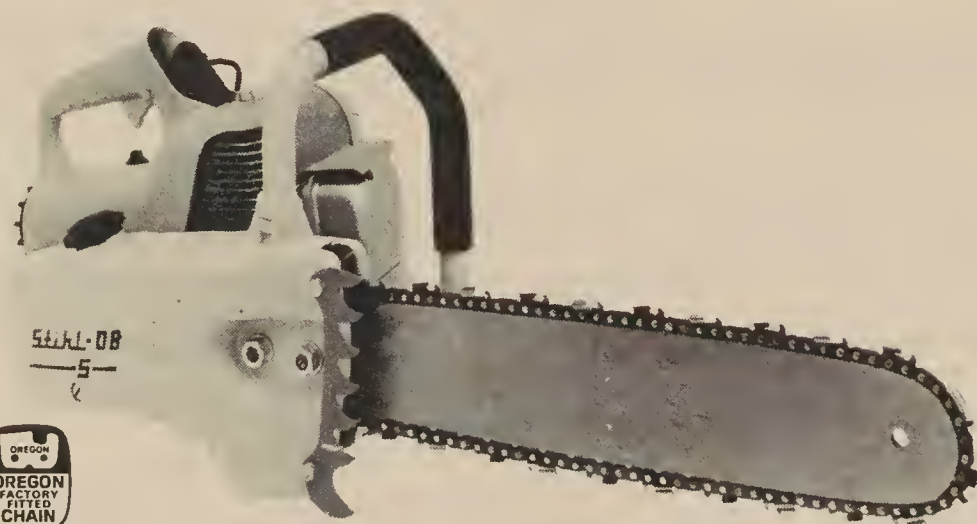
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Cows have taken well to this pole-type free-stall barn at the Hume farm. Feed bunks on skids hold grass silage... a day's supply.

RATHER SWITCH THAN FIGHT

by Bob Cudworth

"WE'RE DOING a better job of milking... we're milking faster... and our milk production has improved since we switched to the new barn..."

This appraisal from James Hume, Jr. of Batavia, New York, follows the switch he and his father made in late fall of '65 from two stanchion-type barns to one free-stall and milking parlor setup.

Jim spent a whole winter with the "sharp pencil" planning how they might improve their operation and what it would cost. The existing barns would seem adequate at first glance, but the Humes knew they were fighting some battles of efficiency in these structures. At first it was planned to add on to one of the existing barns, but there were some inefficiencies that bothered Hume.

So, one day he and the contractor took a walk to a small nearby hill. "How much more will it cost to build here?" asked Jim. "Practically no more," said the builder. After talking it over, the Humes decided to change to a free-stall milking parlor setup.

The new site was a natural, since no grading was required... other than putting some gravel and stone in front... and this made it handy for driving manure spreaders alongside for quick loading.

Hume credits his builder with an excellent job of planning, and

the crew of eight men finished the whole job... barn, free stalls, milking parlor... in eight weeks. Jim comments, "All the lumber was pre-cut right to size so they didn't have to cut any lumber here, and the carpenters were able to make excellent time. "We let him do the whole job because it meant our farm help didn't have to interrupt field work at all."

The barn measures 92 x 147 feet, plus an 18 x 24-foot milkinghouse. There are 148 free stalls.

"We've purposely kept our system flexible," points out Hume, "because who knows... what looks good now may be obsolete in 10 to 15 years. With this setup, we can go to auger feeding, liquid manure, or add on another barn with no difficulty at all."

Practical Feeding

The Humes have installed feed bunks on skids down the middle of the free-stall barn. They use self-unloading wagons to fill the bunks each day.

"We had the feed bunks... they're three years old," says Jim... "and our silage and hay are stored at the other barns anyway, so we decided to make use of the investment we already have in our wagons."

"It gives us a chance to work with this system, iron out some of the kinks, and still not go over-

(Continued on next page)



Jim Hume, Jr. (left) and Bill Kinney handle the milking for the 126-cow dairy in this double-six herringbone milking parlor.

board on added debt.

"We've got 200 feet of feed bunk frontage, and we can fill once a day with silage so this will last until the following day. We also feed hay free-choice."

The Humes have put up one 30 x 60 concrete silo outside the new barn, and may put up another located for double unloading. Of course, this too could be adapted to an auger feeding system.

Hume explains, "One reason we planned our present system was to make best use of our hired help. Good help is hard to find, and this silage feeding system helps to keep our three hired men busy the year 'round."

"One of the biggest advantages

to this system, though, is that we're doing a better job of milking, and doing it faster. Bill Kinney and I handle all the milking now, and we do all 126 cows in two hours. We're milking 15 cows more than we did in our two separate barns. This new double-six herringbone parlor could handle up to 200 cows."

The Humes use a pelleted grain in their milking parlor because cows can clean up the pellets quickly. Bulk bins are located directly over the parlor.

Other features of parlor and milkhous are: a 1,000 gallon bulk tank, carborundum chips imbedded in the milking parlor floor to prevent cow slippage...

plenty of fan capacity to provide thorough ventilation... well-insulated walls... electric heat.

Manure Handling

The Humes have considered the changeover some day to liquid manure facilities; if that happens, their system can be adapted fairly easily.

But in the meantime, their barn is efficiently set up for using a blade on the rear of the tractor to clear out the manure. Loading is easy because the manure can be scraped to a dock and directly into a tank spreader outside the barn.

The manure has to be scraped a distance of 100 feet in some

places, so the free stalls were built with 10-inch curbs. This way, manure will not build up sufficiently ahead of the blade to spill over the curb... as it might with a lower one.

Bedding is put down from the self-unloading wagons. Sometimes it's sawdust, sometimes chopped straw. Getting bedding is often a problem; Jim is hoping that the barn will be warm enough so that some sort of permanent mat system can be used eventually.

In summarizing the switch-over, Jim says he appreciates having a partner... his father... who has the courage to go along with a new system like this even though he's at an age where he doesn't have to.

BROMO FOR COWS

Heavy grain feeding of dairy cows is becoming more popular... but along with higher milk production it brings lower butterfat test. Dairy scientists at the University of Wisconsin have found out why... and what to do about it.

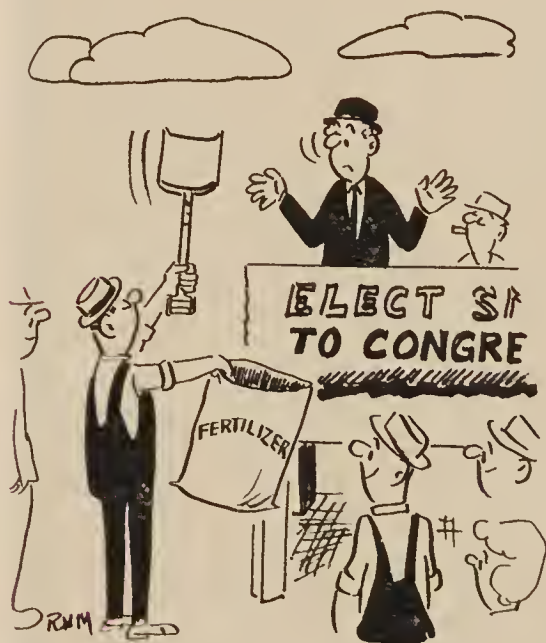
Grain was pushed to dairy cows beyond the practical limits of commercial feeding. Researchers at other universities have also found that the lower butterfat test that comes with high concentrate feeding can be partially remedied with common bicarbonate of soda. With 3 percent sodium bicarbonate in the concentrate, butterfat heads up toward normal again.

At Wisconsin it was also found that cows overfed on grain tend to put on body fat rather than make butterfat. For some reason a heavy grain ration creates an acid condition in the stomach, which depresses production of the components of butterfat. The soda neutralizes this acid condition, and makes it more favorable for normal rumen activity.

But it isn't recommended to feed bicarbonate of soda to keep up the fat tests with heavy grain!

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A 20-page illustrated folder entitled "Lactivation — Key to More Efficient Mastitis-Free Milking" is being made available free through Department AA, Crown Dairy Supply Company, 324 West College Avenue, Waukesha, Wisconsin 53187.



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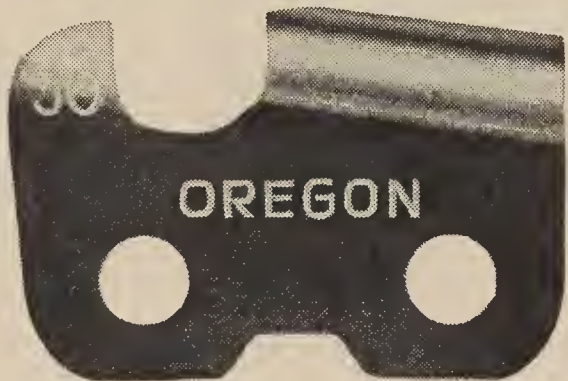
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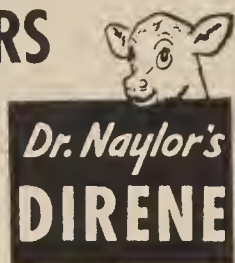
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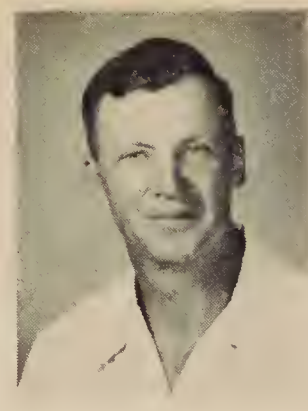
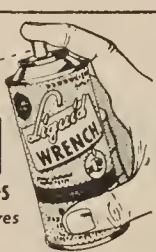
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Gayway Farm Notes

by HAROLD HAWLEY

RYE GRASS TRACTION

When the rains finally came in '65 we were knee-deep in silo-filling... and shortly were knee-deep in mud. Actually, the most surprising thing about both silo-filling and corn picking was the tremendous amount of extra traction and flotation the rye grass sod gave us. This was even more apparent than might sometimes be the case because I had done a poor job of seeding the rye grass.

We use a cyclone type tractor-mounted seeder to scatter the seed at cultivation time. Our rig is powered by a 6-volt electric motor which is supposed to run with juice from the tractor battery. It's hard to take off 6 volts from a 12-volt battery, but by hooking on to a plate in the middle of the top of the battery the current is cut down some. At any rate, the revolutions on the seeder were reduced a little too much and the seed didn't cover the four rows as we cultivated. There was, therefore, no rye grass in every fourth row. I should say the seed spread farther to the right than to the left, so all the ground was covered to the right. On days when we were trying to pick corn and the going left something to be desired, we could go along on one pair of rows on the rye grass pretty well... but the next time across when we had one wheel on the bare ground we were apt to be in trouble.

All aside from preventing erosion and providing winter pasture for the heifers who run in the corn-stalks, the rye grass was worth far more than it cost as a help in traction and an aid in speeding up picking.

MORE BUILDINGS

Being on a school board is a little like trying to run a farm. Never is there a time when one isn't thinking about more room. Either one has just built, is planning for more room, or is involved in a new project.

We are locally needing additional space, and again it seems to me there is a lot of similarity between planning for more housing, whether for educational needs or for farming needs. In both cases there is the choice of building for minimum needs, or trying to see what will be needed for quite a spell ahead. It obviously is cheaper for the long haul to build for future needs, and to make plans for future additions. Naturally, in both cases the cost becomes an item to reckon with. In a school building it is a question of keeping the cost low enough to get the

community to accept the proposition, whereas sometimes, I'm convinced, it would be good business to build more and better while doing it.

Some folks criticize school district boards who provide for something beyond their bare educational needs. My hat is off to them, assuming that the extra expenditures aren't just for frills and fancy stuff. In many of our rural communities there is no community center for recreational or cultural activities; a good gymnasium with adequate seating capacity is a real asset to any community over and above its contribution to the educational program. In the same way and equally important is an auditorium large enough to seat the folks of the community who would like to attend graduation, plays, musical presentations, etc., etc. Our auditorium also doubles as a classroom. Most folks want these facilities for their school and community.

Sound Investment

There seems to be less certainty as to the merits of a swimming pool or a skating rink. Some districts have found that a swimming pool not only takes the place of an extra gym during school hours (and a second gym becomes a necessity as school enrollment mounts) but also serves as a real recreational center for the whole community on one or two nights a week during the school year and full time during the summer months. It takes a little while to get used to the idea, but I've come around to thinking that for many communities needing some place for their young folks to go, and something for them to do, the building of a place to swim is a darn sound investment. Certainly if it is a part of the school needs but can also serve the whole area, so much the better.

Likewise, one of the cheapest sources of a lot of recreation for a lot of people who need an outlet for their energies is a skating rink at the school. Why at the school? Because that's where the kids are and where gym classes are held, and because in many of our rural communities the school is the one taxing unit liable to be able to get the job done.

I'm talking off the top of my head as I've not seen any cost figures yet, but why not a few pipes in the water of an outdoor skating rink? A used refrigerating unit could keep the water cold enough to tide the ice over between cold spells and make skating an all-winter affair... both for gym periods and for all the rest of the

(Continued on next page)

American Agriculturist, February, 1966

time for the whole community.

I remember the hordes of people who have skated at the various ponds, (both natural and man-made) whenever there has been ice. This has been true in every community where we have lived. It seems pretty certain that a swimming pool and a skating rink in many of our communities would reduce the incidence of law-breaking in its various forms.

VENTING DRAINS

Some time ago we mentioned how disgusted we were that the usual trapped floor drains in milk houses just wouldn't handle any quantity of water as they get air-locked. Several letters came back from folks who had licked this problem. As they were good enough to tell what they have done, let me pass along the suggestions.

In various ways and places they tapped the pipe and added a pipe to run outdoors to act as a vent. This apparently can be done almost anywhere between the source and the outlet... the important thing being that an open-end pipe (probably screen-covered) runs outdoors. In our case this means out and up to be sure odors are carried up and away from the milk room. I hope their ideas will work for you, too. Many thanks to all of you who were kind enough to drop us a line about this problem and its solution.

BUY OR RAISE THEM?

Almost every time we get to talking with someone about dairying they ask if we will continue to raise our replacements. The assumption is certainly clear they do not expect that we will. Sometimes I feel sure they are right — especially when 20 or 30 big heifers have just been discovered in the wrong field — ours or someone else's!

This question is like so many others. The best plan for one man wouldn't fit the next. Possibly as we move along, what seems best now will be less attractive later. For a while we plan to raise as many heifers as we can from the best part of the herd, being a little fussy about feet and legs and udders in addition to level of production.

Three main factors have influenced us in our thinking that we should raise our heifers if possible:

(1) We have some rough pasture

land that we will no longer use for cows; (2) We have a lot of corn stalks and rye grass for cheap winter feed; and (3) We hope to reduce disease risk by raising our own stock.

We've already had more experience than we really wanted with shipping fever and Infectious Bovine Rhinotrachitis (IBR) in spite of the best precautions we know about. Looking ahead, we expect to build some protection against Infectious Bovine Rhinotrachitis by vaccinating our heifers for it at the same time as they are vaccinated for brucellosis. We have started on this program.

This disease thing is one that worries us as we buy stock from

outside. Quite a while ago most poultrymen learned that there was some value to raising pullets at home, and thereby exposing them to some of the organisms on the home place. I'm not sure this applies to cattle, but I have a strong hunch that our own replacements, inoculated as best they can be, and with whatever immunity to our strains of trouble they may develop, will move into our milking string with fewer problems than purchased replacements might.

In the next year or two until we get up to size we will of necessity be buying heifers. Having bought some cattle during the past year we have developed some notions

about this. We think heifers are a better buy than older cows. Too many of the older cows we have bought have failed to adjust to our conditions satisfactorily. We are also beginning to wonder if we shouldn't buy heifers along in the summer and fall even if they won't freshen for some time. If we could get them home and on pasture, and then fresh and into the milking string without disease problems, it would be worth the cost of carrying them along for a couple of months.

This whole matter of replacements is one we've got to live with and learn a lot more about than we know yet before we are sure what is best.

That is, until I spoke to the man from Atlantic. He set me straight on a couple of things—saved me quite a bit of money besides. You see, before I started buying my motor oil from Atlantic I was dealing with a salesman who handled an off-brand-type motor oil. He advised me to buy my motor oil needs for the entire year at one time and spread the payments over several months. Didn't sound like a bad idea at the time. Not only did I pay a premium for the oil, but to top it off, I even had to haul the drums myself. Some service! Then I changed to Atlantic.

Now, with Atlantic motor oil I know I'm buying the finest quality motor oil at the regular price

the year round. I buy it as I need it, or I can have it under a spring dating plan where I order my needs for the entire year and pay for it over a 90-day period at no penalty in cost. It's then delivered by the Atlantic man on his own truck at no extra charge where I want it—when I want it!

You can't beat that. For quality, service, and just plain downright straight-dealing, it makes good sense to see the man from Atlantic.

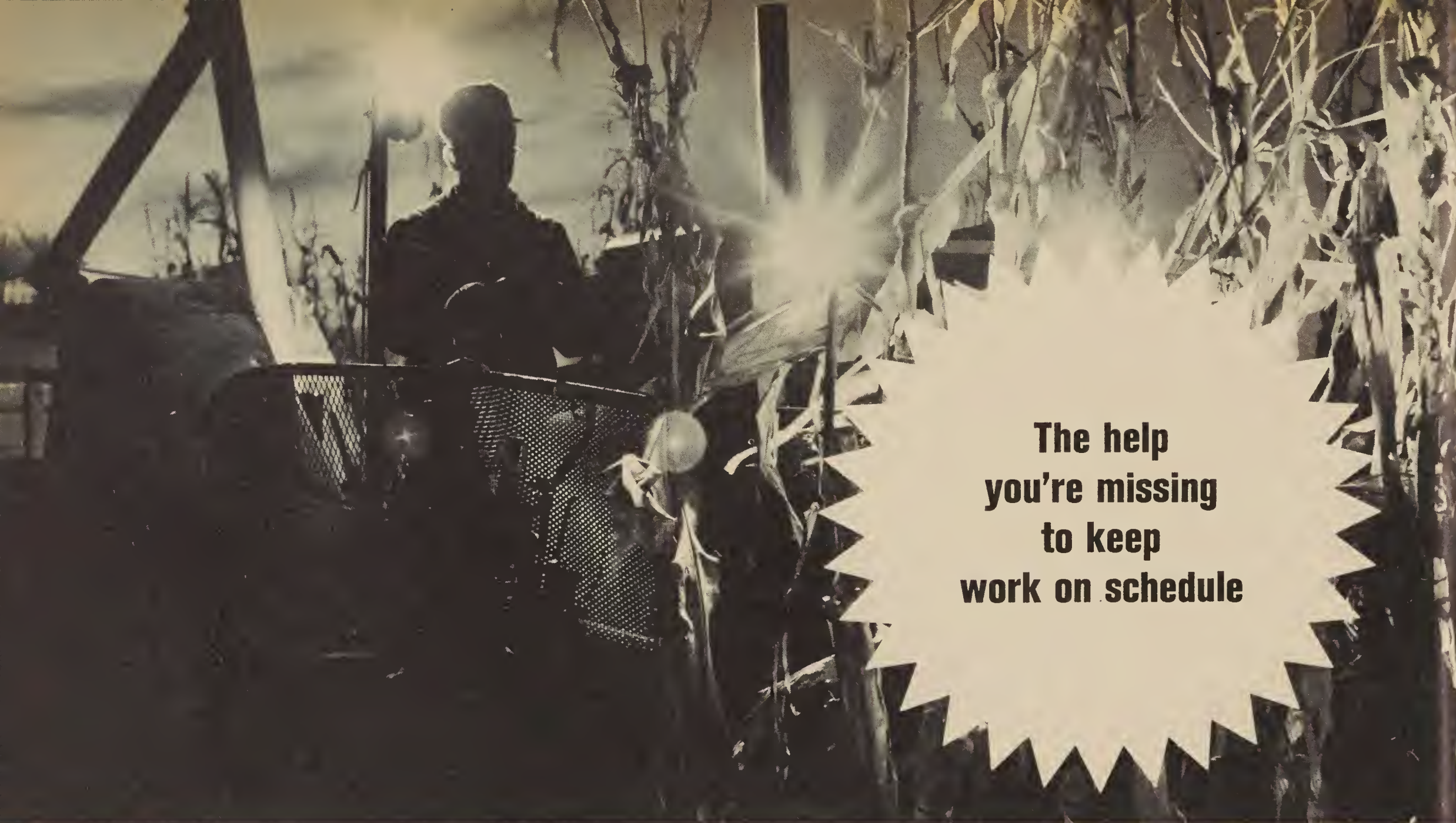
For quality gasoline, diesel fuel, motor oil, heating oil, kerosene... for prompt deliveries, loan of equipment, complete service... call The Atlantic Refining Company or your Atlantic distributor.

ATLANTIC

I don't raise sheep—
but I sure had the wool
pulled over my eyes!



"You forgot his dog food."
American Agriculturist, February, 1966



**The help
you're missing
to keep
work on schedule**

**...is the help
you get from the
field-proved features
of a John Deere
94 h.p. 4020, 70 h.p. 3020,
or new 53 h.p. 2510**

If the help you're missing is manpower, a John Deere Tractor can help make up the shortage—providing speed and capacity to handle bigger workloads. If the help you're missing is in the area of tractor features, John Deere Row-Crops have all the best of 'em—in all three power sizes.

John Deere Row-Crops give you a bigger helping of staying power. You pick the most productive working speed for implements . . . your John Deere Tractor will hold that speed through thick and thin, uphill and down. You'll seldom, if ever, have to downshift. Credit the power-in-reserve built up by the massive rotating engine parts.

John Deere Row-Crops give you a bigger helping of usable power in the faster, more-practical working gears: 3rd, 4th, and 5th. John Deere-built variable-speed engines in the "4020," "3020," and "2510" put a wide range of governed engine speeds at throttle command—you can pinpoint the exact speed that's right for implement and conditions.

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Look ahead, right now, to the upcoming tillage season. Estimate the amount of help you'll need; then arrange with your John Deere dealer to field-test the John Deere power size that'll do the job for you: new 53 h.p.* "2510," 70 h.p.* "3020," or 94 h.p.* "4020." Your dealer can give you a helping hand with financing, too, through a tailor-made, confidential John Deere Credit Plan.

*With Syncro-Range Transmission. Maximum observed h.p. at the PTO at 2,500 engine rpm on "2510" and "3020" . . . at 2,200 engine rpm on "4020" (factory observed)

JOHN DEERE
Moline, Illinois



BHL



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BIGNESS

I have no fear of competition, or objection to the big farmer or any other business, as long as it is (1) voluntary and (2) is done with funds that are the responsibility of those who operate it. I object to the government... or some cooperative... promoting and financing many of the spectacular "modern" projects of integration and automation. These could not stand on their own feet, and they disregard their effect on persons as individuals, either as to employment or pride in their work.

In the long run, I question the value of coercive power of government, and almost as much the concentrated bargaining power of new large organizations. In most cases, the large powerful organizations... in the process of getting powerful... have lost the real purpose and intent of the individuals they are supposed to represent. The combined judgment of many individuals and their decisions are much more likely to be right than

the most capable managers of these corporations.

My biggest objection to cooperatives getting so large is that they become like big business and forget the very things the organizations were originally set up for. It's like a balloon that is blown up... so good we make it bigger and bigger until it bursts and we lose all we originally had. — *Chester H. Lee, Dexter, New York*

APPLES OF YESTERYEAR

I was a North Jerseyman most of my life; the family came in 1780 to farm. Among the apples we had, now not even known, were: Belle Flower... large long apple with a beautiful yellow color and a pink cheek, used mostly for baking; a yellow Harrison apple, larger than a crabapple, used in making a rich clear cider, medium early; Smith Cider, medium-sized, more flat, pure white inside, thin skin, mostly yellow, made delicious apple sauce.

Grimes Golden, medium-sized

yellow, was a very spicy apple for sauce. Then there was the Sheep Nose, named for its shape; Fall Pippin, mentioned in Mr. Todd's article, large yellow and very mellow; Red Astrachan with pink and reddish stripes and white inside was medium tart. Northern Spy had a crisp snap when bitten into, the wonderful Baldwin kept all winter, as did the yellowish Green Greening, and lastly the very sweet, very late, tough-skinned Canfield with red cheeks.

North Jersey was noted for its cider, vinegar and excellent apple-jack.

— *Norman S. Gould, Milltown, New Jersey*

ON FENCES

I was born and raised in Illinois and owned a farm there for many years, but now live in New York

The law in Illinois requires owners of adjoining farms each to build one half the fence and maintain it only if both have livestock. If one owner does not raise livestock, he does not have to build any fence and the owner who does has to build all the fence. The owner of the livestock breaking out and getting into the neighbor's property, regardless of whose fence they went through, has to pay any damages unless the neighbor was negligent in maintaining his part of the fence and they went through his part of the fence.

If the livestock crosses the neighbor's land and goes on to the second farm, fence or no fence,

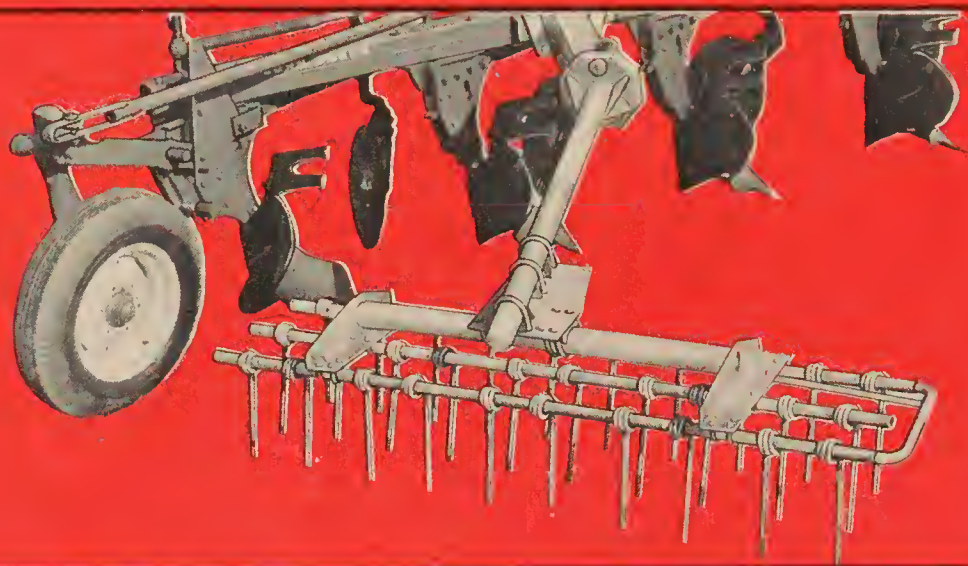
and does damage, the owner of the second place sues the owner of the livestock and not the owner of the land they crossed getting onto his place.

By custom, not law, they have established maximum amounts that you can collect per acre for crop damage, plus any fence repairs and time rounding up the livestock. If you have to pen up and feed the stock, you can collect so much per day for feed and care, and the owner cannot get back his animals until he pays the full claim for everything. The Illinois law makes the owner of livestock responsible for them.

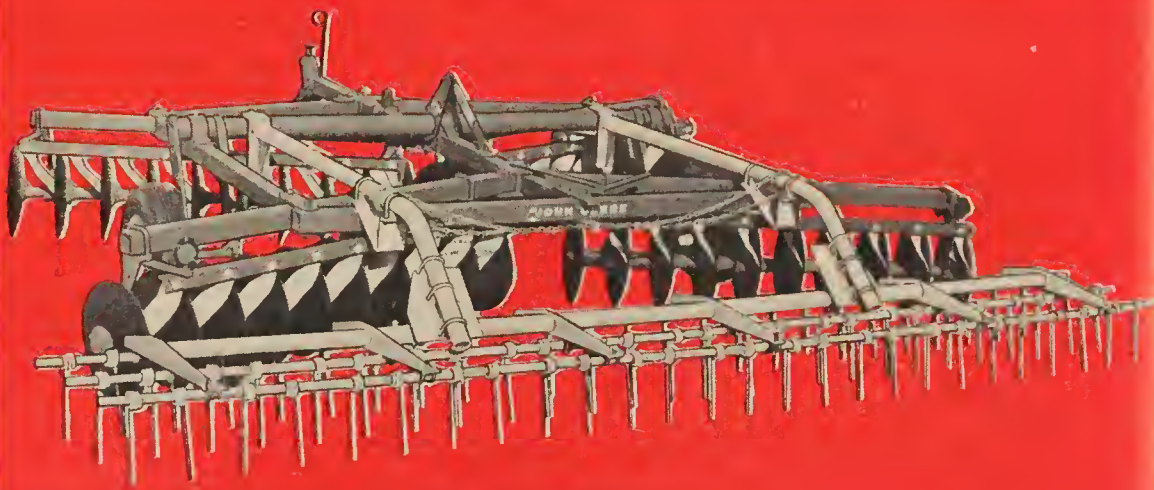
We raised nothing but grain on my place, so I did not build any fence. Even along the highway I had no fence because the owner of any livestock coming on my place from the highway was responsible for any damage regardless of how they got on the highway.

We had a different neighbor on each of the other three sides; each built and maintained all the fence on his side, as they all had livestock. One neighbor liked to pasture my place at times and would leave the fence so the animals could get through without much trouble. I instructed the tenant to put the neighbor's cattle in the barn the next time they came over, and notify the neighbor we were holding them. The owner tried to claim they were not his animals, thinking we would turn them loose. We told him that was all right, (Continued on next page)

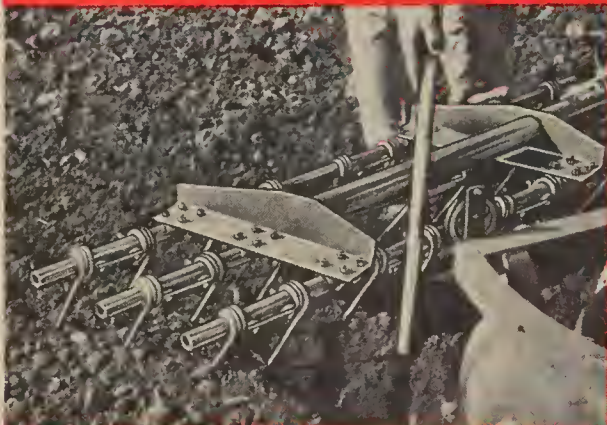
You'll prepare the best in seedbeds . . . save time and trips with a new *Midwest* LIFT-HARROW



FOR PLOWS— Watch a Midwest Lift-Harrow at work on a plow. See how the coil spring teeth snap clods and break furrow slabs . . . to help you prepare the best in seedbeds. You can equip most any plow with a Lift-Harrow. One section handles up to four bottoms, two to eight. Units raise with plow.



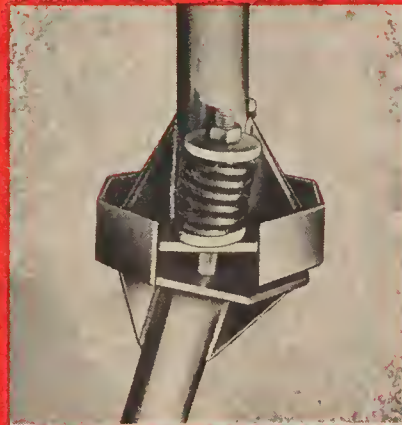
FOR DISKS, FIELD CULTIVATORS— Quick-attach mounting brackets make it easy to mount a Midwest Lift-Harrow to the main frame of most disks and field cultivators to raise and lower instantly. Tooth bars extend to cover disk furrows. Optional extensions make it easy to increase width.



Close-up of Lift-Harrow coil spring teeth at work shows you how they are positioned on mounting bars to assure complete coverage . . . and at same time, spaced to allow trash to pass through and avoid clogging.



Back up if you like! Midwest Swing-Mounted teeth are held in at-work position during forward travel. When it becomes necessary to back with teeth in ground, Lift-Harrow teeth pivot and swing forward.



Godbersen Break-Away protects Lift-Harrow plow units from obstructions. Ground pressure is also adjusted at Break-Away. And it acts as shock absorber.

FREE FOLDER — Send coupon for free Lift-Harrow folder. See how you can save time and trips . . . prepare the best seedbeds possible.

MEMBER
F.E.M.A.

Midwest Industries, Inc., Dept. 13C
Ida Grove, Iowa

Please send me a free folder on the new Midwest Lift-Harrow

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State _____

that we would hold them until someone claimed them.

The next day he came back and said upon further checking he found they were his cattle, paid us in full for everything, and took them home! We weren't bothered much after that!

I once took this whole fence matter up with the assemblyman for the district in New York State where I lived at that time. He was a "gentleman farmer" and lived on his farm. He thought the fence law and some others were very unfair and spent quite a lot of time trying to get some changes.

The assemblymen from New York City had no such problems and would waste no time on it. The Upstate politicians would have no part of a change, because the voters in the cities were not interested and they thought they would lose votes in the rural areas if they had anything to do with a change in a fence law. — *Carroll C. Naney, Schenectady, New York*

INSURANCE

I have a copy of a page from the November 1965 issue of the *American Agriculturist*. I am quite shocked at the contents as evidently many others are in the State, from the number of letters and calls I am receiving in my office.

The article is headed "Non Assessable" and it replies to a letter received from a lady whose husband had insurance with the Liberty Bell Mutual Insurance Company many years ago while in Pennsylvania. She states that she has been required to pay an additional assessment due to the Company going bankrupt. The reply you give her is naturally correct, but you should also state that the last paragraph of your article is your own personal opinion and can be taken for what it is worth.

As pertains to New York State, I would like to state that, answering for some 85 co-operative mutual assessment companies who are members of the New York State Central Organization of Co-operative Fire Insurance Companies, I feel that you should also go on to state that all companies, including assessment cooperatives or mutuals, are under the jurisdiction of the State Insurance Department, making quarterly reports the same as all companies; that it is necessary to maintain a reserve to help pay for losses and expenses of the company that year. Also, that in New York State, the cooperatives are insuring approximately 75 to 80 percent, or more, of all farm property . . . saving the owners several million dollars a year in their insurance payments . . . and are paying dollar for dollar at time of loss.

If it were not for the Pure Assessment Cooperative Mutual Companies in New York State, the farmers would find that they would be unable to carry the amount of insurance coverage that they need due to the excessive cost in non-assessable companies.

Personally, I feel that the lady

who questioned you in regard to the additional assessment, no doubt saved the amount of the extra assessment in her insurance premium by being a member of the assessment company. — *Lindon B. Morse, President, N. Y. State Central Organization of Co-operative Fire Insurance Companies, Roxbury, New York*

FELLOW DAIRYMEN!

We have been waiting several years for our various associations to get us an increase in price for milk, but apparently with no action as yet.

I am trying to start a movement to get a better price for milk for us dairymen.

Will you support this movement by writing letters? I think every dairyman in the New York milk market should write one letter a week to his congressmen, and also bombard the Secretary of Agriculture with letters concerning our problems. Maybe a few letters to President Johnson would help too. — *Ivan Giesy, Lyons, New York*

MANY REPLIES

I would like to extend my hearty thanks to the many nice people who responded to my request for the poem "A Life on the Ocean Wave." I received about 55 replies from people in several states, two books and sheets out of other books. As I am still a busy house-

wife on a farm, I'm afraid it would be quite a task to acknowledge each one, but I want everyone to know I'm grateful.

You surely have a well read and interesting magazine. — *Mrs. Merritt Timmerman, Cohocton, N.Y.*

ANIMAL SENSE

J. Kleiner, Box 368, Hightstown, New Jersey, writes that every time he declares war on predatory animals they disappear for a few days until his anger has cooled. He wonders if any other readers of AA-RNY have noticed this seemingly mysterious ability of animals to detect the appropriate time to make themselves scarce.

A 1400 pound cow producing 80 pounds of milk requires 118 grams of calcium, 89 grams of phosphorus per day for maintenance and production. That's a 1.33:1 ratio. Beacon Dairy Rations are now formulated to provide a calcium:phosphorus ratio of approximately 1.5:1 when fed with normal levels of legumes and/or corn silage. This contrasts with much wider calcium:phosphorus ratios when conventional dairy rations are fed. We are also adding 30% more phosphorus with a low pH and in a highly available form.

What does this mean to you and your herd? It means better utilization of the total ration, more efficient calcium utilization (important to skeletal growth and maintenance and to milk production), lower incidence of milk fever by keeping calcium blood serum values above the level where milk fever occurs, better conversion of carotene to vitamin A.

They all add up to improved efficiency of energy, protein and mineral nutrients, better herd health, higher total milk production.



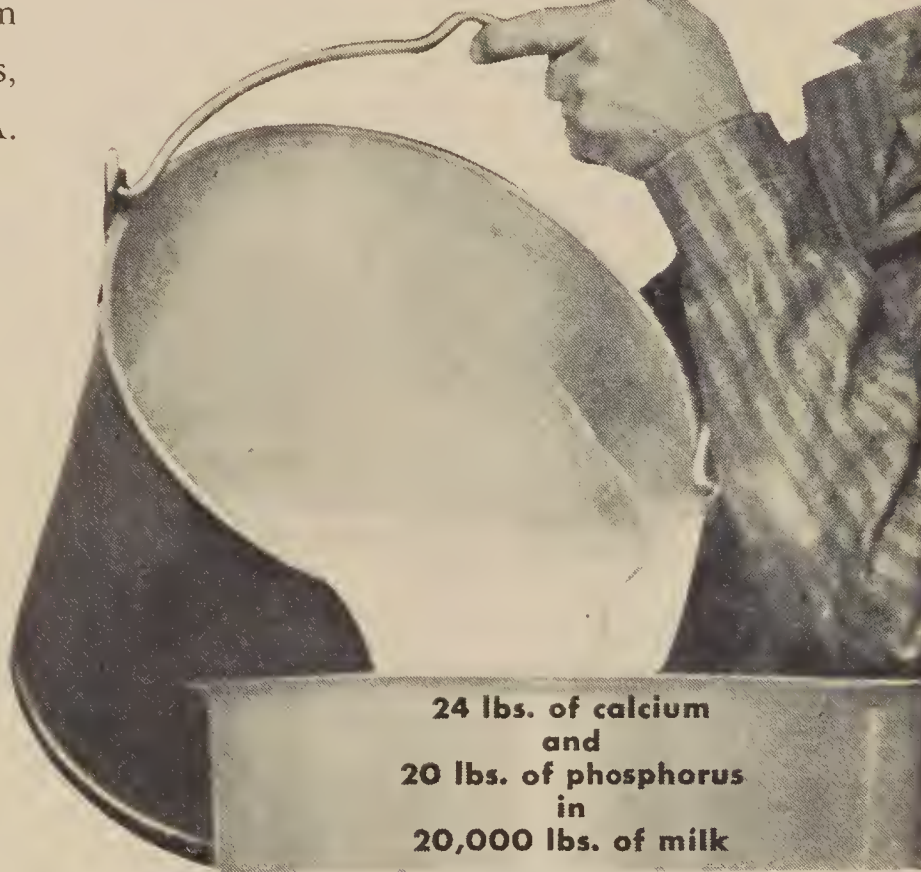
Your Beacon Advisor has full information on all Beacon Dairy Rations. Why not call him today?

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Dr. Lew S. Mix

"A cow producing 20,000 pounds of milk secretes 24 pounds of calcium and 20 pounds of phosphorus per year. That's reason enough for us to give special attention to the calcium:phosphorus ratio and availability in Beacon Dairy Rations" — Dr. Lew S. Mix, Vice President and Director of Research and Development for Beacon Feeds.



BEACON FEEDS

**"Cuts my
milk parlor
clean-up time
in half!"**

Says James Patsos of Clyde, N. Y.



NEW GOULDS WATER GUN

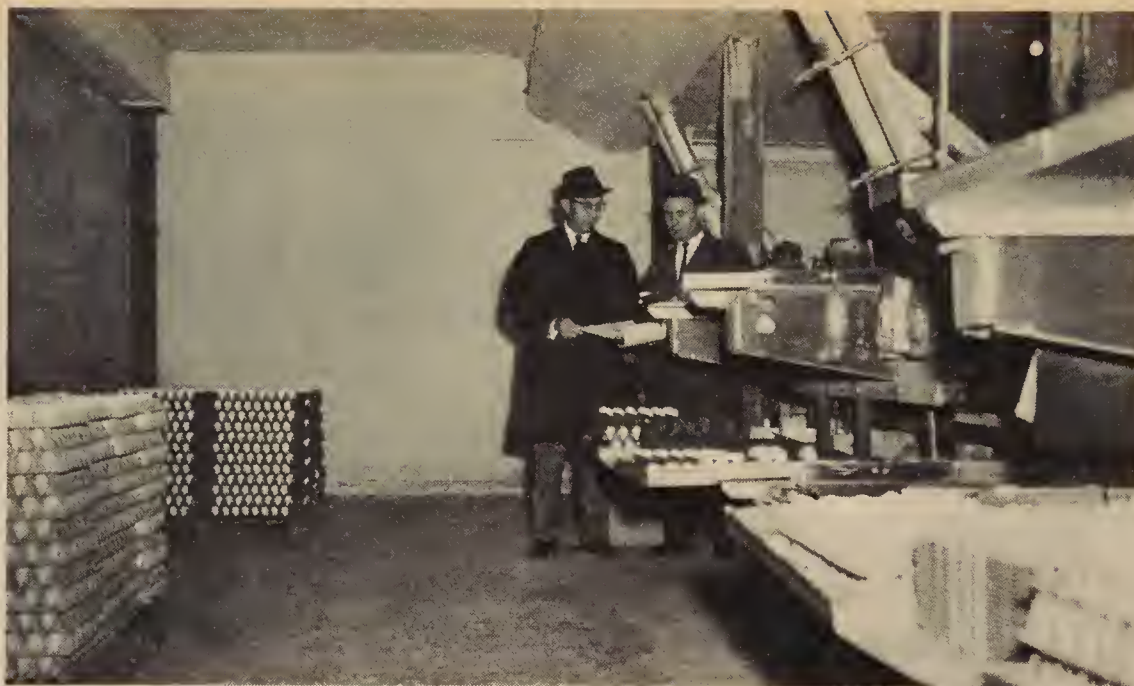
A versatile utility pump with dozens of uses around the farm. Cuts clean-up time in your milk parlor and other animal housing areas. Cleans tractor, truck and farm implements. This remarkable Water Gun boosts intake pressure 80 lbs. Washes away mud, dirt and manure. Easy to carry from place to place. Intake hose works from faucet, well, farm pond, tank, stream . . . anywhere there's water. Get the details from your Goulds dealer. Or mail coupon today for free brochure.

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Max Brender (left) and Portland Cement Association representative Bob Gibbs at the discharge point of egg belts from a portion of the laying house.

BIOLOGICAL MANUFACTURING

THE POULTRY BUSINESS has moved rapidly in the direction of what some folks call biological manufacturing. . . production lines with hens bolted down in cages and conveyors bringing feed, taking away eggs. Sentimentalists may decry this transition, but it cannot be denied that a result has been efficient egg and meat production.

Max Brender's Sunnyside Up Farm, not far from Monticello, New York, pours forth thousands of eggs a day. There is room for 6,700 birds per row of cages, four rows per floor, two floors per wing . . . and three 450 x 44.5-foot wings radiating out from a central egg-handling area.

Four Birds

Each cage is 12 by 20 inches, holding four birds. Experiments showed little difference between the production of three birds versus four birds per cage.

Within minutes of when an egg is laid, it is conveyed by belts to the place where it is put in a plastic filler flat, then washed, oiled, and moved to a cooler that removes body heat.

After cooling, it is graded and packed ready for market. The collection flats are many different colors, each color denoting a code for a specific group of hens . . . or to signify a group involved in one of the genetic or nutritional experiments constantly going on.

The Brenders are poultry breeders, sell chicks in many parts of the world. In return, folks from many places visit Sunnyside Up . . . the guest book lists visitors from many states and countries.

They come to tour the farm, see the laying house, note the 100 K.W. auxiliary generator, and see the efficient egg-handling facilities. They observe the lighting system . . . 40 watt bulbs in the aisles, 25 watt on the wall sides, all bulbs 12 feet apart in rows and the rows the same distance apart. Visitors . . . including leaders of Russia's faltering agricultural economy . . . marvel at the wealth of records available on such things as production, costs, income, projected cash flow, and other management items. Many are the people of the world who would welcome having in their own countries such a cor-

nucopia as this, pouring forth its high-quality and nutritious food.
— Gordon Conklin

POULTRY STUDY

A long-range study of the trends in the poultry industry of the Northeast . . . and the forces that will shape the industry . . . received top billing as officers and directors of the Northeastern Poultry Producers Council (NEPPCO) met recently.

The industry analysis, labeled the "Pine Tree Study," is designed to forecast the possible course of the industry in the Northeast over the next decade. Richard I. Ammon, NEPPCO's executive director, announced that the target date for the completion of the study is the spring of 1966. It is currently underway as a project of the Council staff, in cooperation with several universities and industry committees.

A NEW DRUG

A new drug called furadroxyl has given good results in experiments at the University of Wisconsin. As a feed additive, it kept egg production higher from October through February, when winter slump usually occurs. Not only so, but it held production up on a 14 percent ration as against the usual 16 percent protein ration. This could mean a saving of 10 cents per bird, or \$8 per month with a 1,000-bird laying flock.

KEEP 'EM DIRTY

Poultrymen may be making a mistake when they wash dirty chick waterers, according to a study conducted at the Cargill-Nutrena research farm at Elk River, Minnesota. The dirty watering jar, it is explained, keeps more coccidia alive to be re-ingested during the prime exposure periods following vaccination. Putting coccidiosis vaccine in the water is only the beginning step in immunization, which is accomplished by ingesting the vaccine and then repeatedly re-ingesting it from droppings.

NOW PROVED IN THE NORTHEAST ROBSON EXCEL SORGHUM-SUDANGRASS HYBRID CHOW MAKER

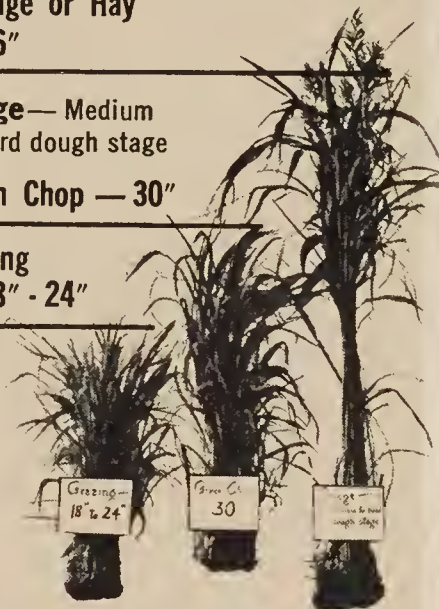
The Complete Summer
Feeding Program

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1. ACT MECHANICALLY . . . keep end of teat open in natural shape to maintain free milk flow. Stay in large or small teats.
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AT LESS THAN WHOLESALE

ON - THE - FARM EGG PROCESSING

Editor's Note: Here's an abstract of remarks made by Frank Reed, Extension economist at the University of Maine, at the last NEPPCO annual meeting.

I BELIEVE that on-the-farm egg processing will continue to increase; that it will be confined mainly to larger farms of 20,000 layers and up; that there will be no marked shift toward direct marketing from producer to store; that the egg distributor will still be around; and that the central egg-packing plant will be necessary. Further, I predict that the most common distribution channel will be a modification of our present packer-distributor system whereby distributors will both operate central packing plants and serve as distributors for farm processed eggs.

The only really significant advantage of on-the-farm processing, in my opinion, is that it can be done cheaper at this point than any other. The savings in processing costs are substantial . . . in the magnitude of 1/2 cent to 1 cent per dozen or more with a farm-processing unit of economic size.

Why are farm-processing costs lower? Lower farm wage rates in general are a factor, but not the major one. Farm processing eliminates at least one handling of the eggs. The extra labor involved by the producer in loading eggs onto a processing line over putting nest-run eggs into a case is practically nil.

The biggest cost saving in on-the-farm processing is in overhead costs for buildings and coolers. The producer already has an egg room; he has or should have a cooler regardless of the method of selling eggs. Therefore, his only extra building cost is the small amount of additional floor space necessary to house the equipment.

Management and supervision functions with on-the-farm processing operations are usually carried on by the owner and shared with the over-all farm management duties. A further cost saving associated with farm processing is the complete elimination of container cost (cases and fillers) for farm pick-up assembly.

Concern

My greatest concern about on-the-farm processing is that it will tempt both producers and retail stores to undertake direct marketing. Such a development, with its multiplication of sellers, will further weaken the bargaining position of producers, place them in an extremely vulnerable position, and could result in a round of price cutting and demoralized marketing conditions in some areas.

Whether this happens or not will depend upon the response of present marketing firms. If they fail to adjust I predict it will happen. Let's not kid ourselves, producers are going to jump at what

looks like a chance to get more for their eggs, and stores are going to buy at the lowest possible prices.

So I think that the answer is for our marketing agencies to get into the act as they have in California. Direct marketing has not increased in California . . . the major distributors there continue to perform the marketing function.

By and large I believe most producers will be better off to leave the marketing to specialized firms. It's a tough racket . . . and any producer who goes into it will find himself confronted with exactly the same problems experienced by all marketing firms. Furthermore, with his limited volume and outlets he is even more vulnerable to price

From the retail store's standpoint, it is difficult for me to understand why any retail chain buyer would be interested except on the basis of price. So my advice to producers considering direct marketing is to go into it with your eyes open . . . recognizing that you'll end up with another business, that of an egg distributor, with all the problems and headaches associated with it.

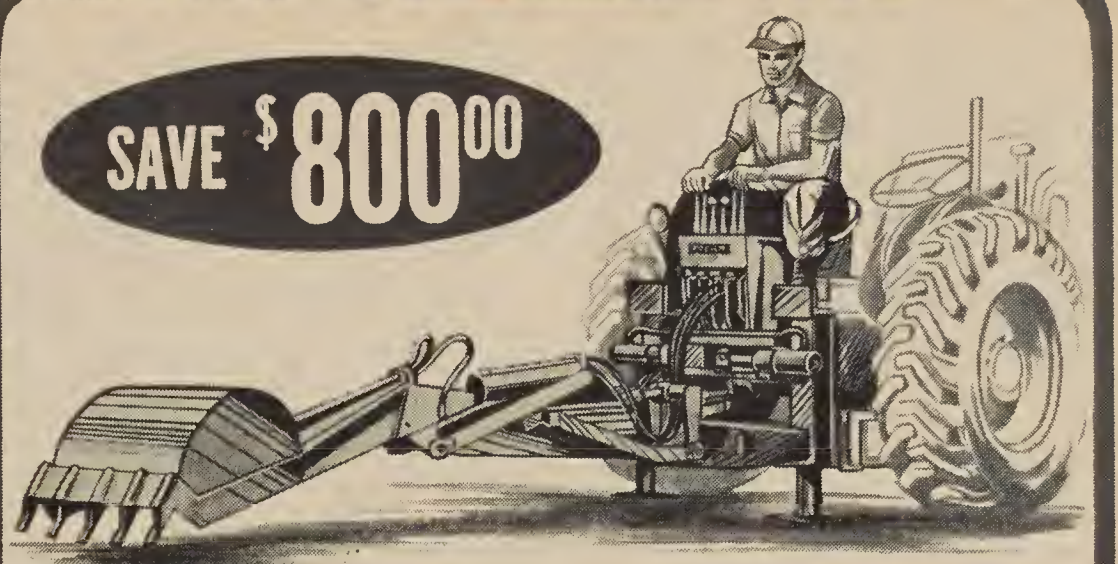
Economics

If we're talking about marketing farm-processed eggs through a distributor we must recognize that the extra price a distributor can pay for farm-processed eggs must be at least as low as he could process the eggs in his own plant. This rules out hand candling and hand weighing, and dictates mechanized equipment for washing, mass candling and weighing.

Such equipment is expensive . . . but not as expensive as you might think. Highly efficient equipment, including in-line washer, mass candler and sizer with a rated capacity of 10 cases per hour is now on the market in the \$2,000 to \$3,000 range. Based on my own budgets I would put the minimum necessary size operation to justify owning such equipment at about 10,000 layers . . . if costs of processing are to be kept at 2 cents per dozen or lower.

Beyond the question of practical size of operation, the first consideration is whether you have a market for farm processed eggs. You have two alternatives: you can try to develop your own direct markets to stores or you can hunt for a distributor. The important thing is that you have an outlet for all of your eggs. You can hardly expect a marketing agency to handle only your surplus.

I am greatly concerned that too many producers are going into farm processing, making a big investment without any definite idea of where they are going to sell their eggs. Such producers, already stuck with their investment, are ripe pickings for distributors or retail stores who offer ridiculously low prices for processed eggs.



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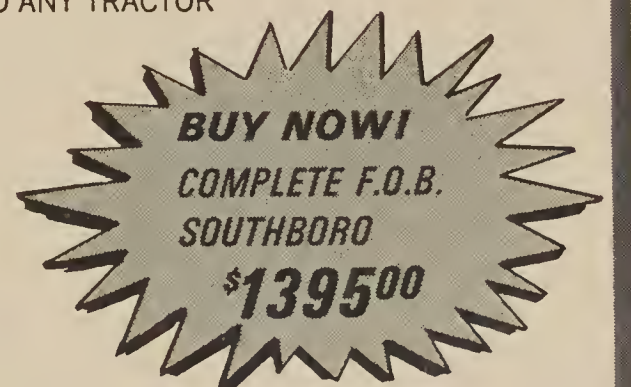
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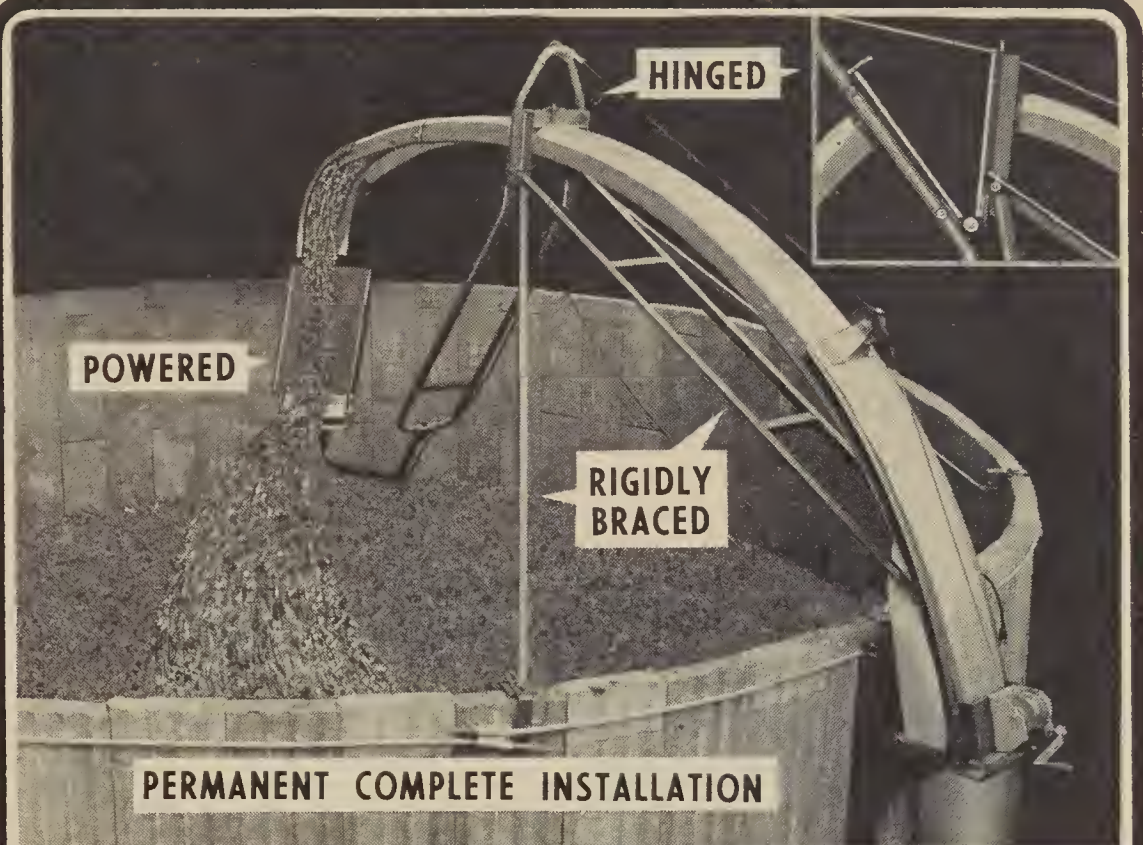
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NEW VIGOR FOR AN OLD INDUSTRY

by Fred E. Winch, Jr.

LAST OCTOBER, two meetings of interest to maple producers were held in Philadelphia. Though Philadelphia is out of the maple-producing belt, it has a facility which has very much influenced the maple industry. This is the USDA's Eastern Utilization Research and Development Division Laboratory and its Maple Unit headed by Dr. C. O. Willits.

Every three years, for the last fifteen years, there has been a triennial Maple Conference at the Laboratory. It has brought research, education, the producer, and industry together to the point that when the USDA recently proposed eliminating the project, a deluge of letters from maple organizations to their federal legislators resulted in work being continued, though somewhat reduced.

Innovators

Probably the presentation which had most producers on their chair edges at this session was that of a panel of innovators from New England, New York, Pennsylvania, and Wisconsin. After hearing about fall tapping by Mr. Beabes of Pennsylvania back in 1962, and his results of "just about double production," a good many others tried fall tapping in the 1964-65 dormant season.

Most of the innovators tapped the trees in November, placing a sanitizing pellet in the tap hole. As can be expected, there were variable results depending on the weather, location and the season. Several of the northern experimenters got reasonable runs, and some boiled sap to sirup... "good sirup" according to those who processed it. In the southern end of the maple belt there were larger and more valuable flows. These early runs did produce a sirup with a "leafy taste" according to a couple of producers.

Some of the experimenters tap-

ped in November, added a pellet, and in April the taphole was still producing as well as those tapped in the conventional season. Others in the warmer areas added a second pellet during the mid-winter... these, too, were still producing well.

Consensus was that the need is for better long-range forecasts of weather to make this technique adaptable to a great many producers, especially those in the northern areas. The most important fact to be emphasized was that early tapping was practical.

It was the conclusion of many that here was a test showing that maple producers could get out and start tapping in January in New York, New England and northern Pennsylvania. They could thereby produce a normal crop, but spread their work over a longer period and add more production to their enterprise... thus gaining efficiency.

As population grows, the maple enterprise must also grow just to continue to serve its small slice of the U.S. clientele. A 10 percent expansion yearly is not out of line for the maple producer to aim for. With better marketing on a year-round basis, and with nationwide markets, the clientele percent of the population which may be reached will also grow.

Work at the Laboratory is looking forward to solving a problem which may occur now that maples can produce sap longer. When sap is collected during the period when the chemistry of the tree changes from "sweet water" to a substance which is used for tree growth, the sap becomes "buddy" and is unfit for use in developing a table grade sirup. Because sanitation pellets are now used by practically all progressive producers, the chances of "buddy" sirup is much greater

(Continued on page 31)

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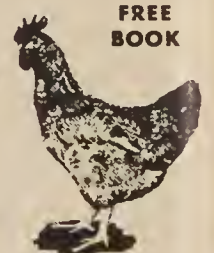
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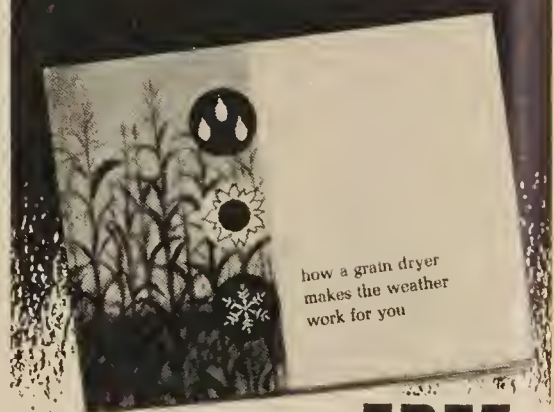
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DAIRY ASSOCIATION CO., Lyndonville 11, Vt.
American Agriculturist, February, 1966

New vigor
(Continued from page 30)

than formerly. This was dramatically the case in 1963 in some areas.

Dr. John C. Kissinger has pointed out that it takes only one or two trees in a sugar bush to turn "buddy" and downgrade the total flow from the area. His approach has been one which, though it does not produce a table grade sirup, can produce one which is usable in manufactured or blended products, the meat industry, or several other processed items.

The approach here has been a reversal of the usual procedure . . . instead of fighting bacteria, Kissinger is using them. He has taken a pure culture of a special bacteria (*Pseudomonas geniculata*), diluted buddy sirup with pure water, added the bacteria and allowed it to ferment in controlled conditions. After two days of "working" the solution was again processed to sirup. Buddy flavor was no longer detectable, and a medium amber sirup usable for commercial purposes was the result.

This process can be an insurance policy for the growing number of large central evaporation plants in the maple region. In searching for processing equipment to assure sterile sap, or to sterilized dilute sirup, existing equipment has been adapted and can be of help where electricity and pumps are available. Such equipment is the ultraviolet water purification units that use two 30-watt germicidal lamps

around which the liquid to be purified flows in a 1/2-inch layer. Such units can handle 8 gallons of liquid sap per minute and are in the price range any larger producer can afford.

Dr. Willits reviewed some of the accomplishments in the period from 1962 to 1965. The year 1962 was a bench-mark . . . the first year that sanitizing pellets were marketed commercially. The results of their use appear to be excellent. Sirup quality from treated sap has improved; sap yields from treated tap holes has increased; trees may be tapped earlier and flow may be extended longer. This latter fact enabled many producers to make a partial crop late in the season, in spite of poor weather early in the season of 1965.

During the period when the effort was concentrated on tap hole sanitation, thoughts of researchers and producers alike turned to ideas for keeping sap as sterile as possible, and ultraviolet germicidal lights were put into use over tanks for sap and for sirup. A test has been devised to detect "buddy sap," and this is being discussed and tried by some producers.

The period also has seen the advent of larger enterprises; it is now not unusual to see plants producing 4,000 to 10,000 gallons of sirup, and the 1,000-gallon plant is becoming quite common. With these larger plants have come the gas-fired finish or standardization pan where a more uniform

sirup can be produced. This goal of uniform density sirup will be a reality when some of the new electronic density determination equipment now in the developmental stage can be available.

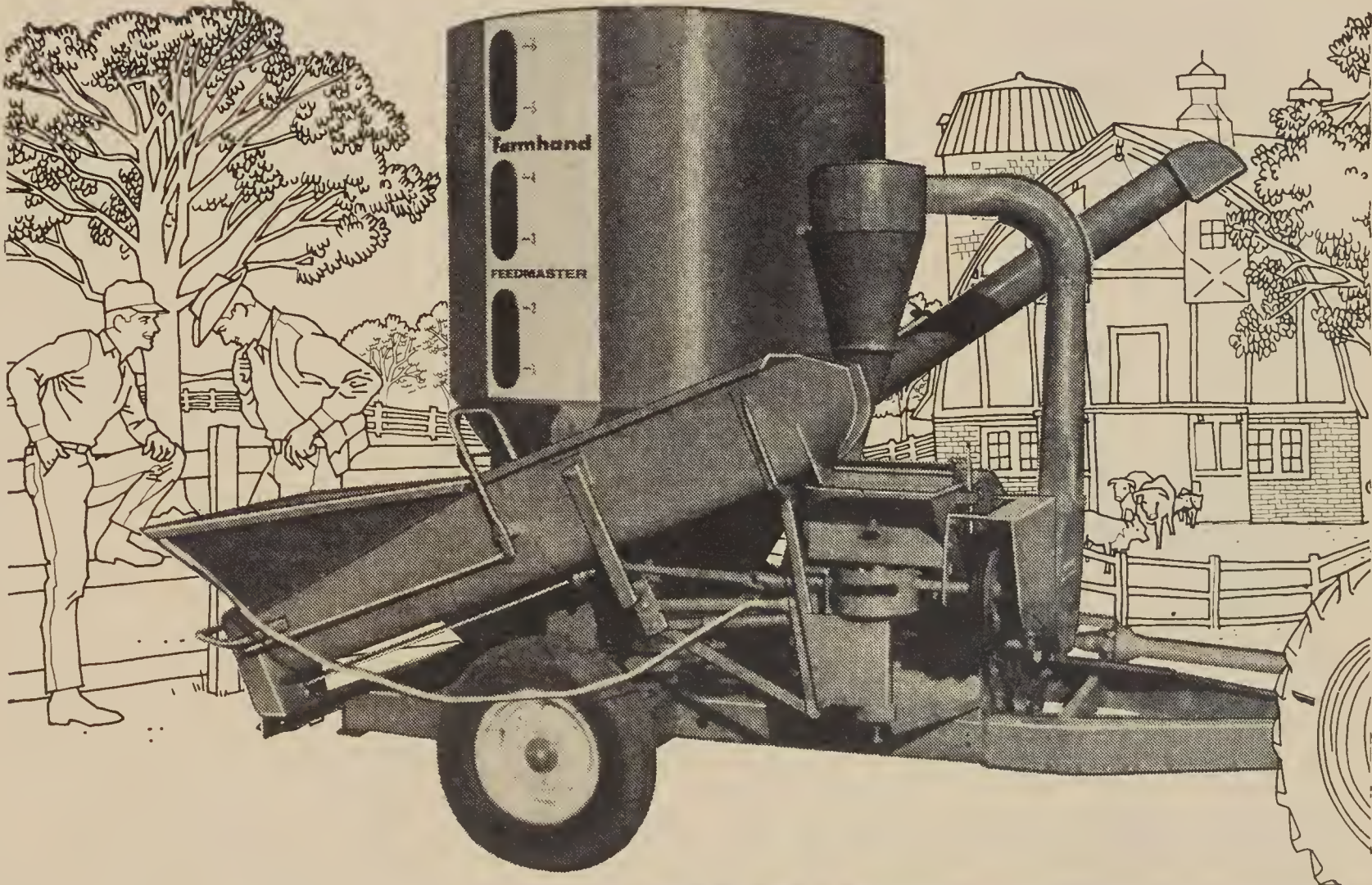
The second meeting in Philadelphia was that of the National Council. Representatives of New Hampshire, New York, Vermont, Michigan, Maine, Ohio, Massachusetts, Wisconsin and Pennsylvania producers' organizations make up the Council. Out-going President Linwood Lesure of Massachusetts reported on the successful work to keep the Maple Unit at the Laboratory and to support the need for U. S. Forest Service research on forest management for sugar production at the Experiment Station in Vermont. Committees on tariffs and marketing were active. The council also voted Ohio to be the location of the National Maple Queen contest in 1966.

The election of new officers placed Adin Reynolds of Aniwa, Wisconsin, as president; Ture Johnson, Burton, Ohio, vice president; Lloyd Sipple, Bainbridge, New York, as secretary-treasurer. Mr. Reynolds is typical of the active and aggressive maple industry in the Midwest. Adin, his sons and father are running a central evaporation enterprise which can process sap from more than 125,000 taps, and can handle sirup from other smaller producers in the general area through their marketing program.

- ### Dates to Remember
- February 3-4 - Annual meeting, National Mastitis Council, O'Hare-Sahara Inn, Chicago, Ill.
 - February 3-4 - New Hampshire Poultry Health Conference, Memorial Union Building, University of New Hampshire, Durham, N.H.
 - February 6-9 - 25th annual National Peach Council Convention and Trade Show, Charlotte, N.C.
 - February 7-13 - Boy Scout Week.
 - February 8-11 - University of Delaware annual Farm and Home Week, Agricultural Hall, University of Delaware, Newark, Del.
 - February 11-20 - National Future Farmers of America Week.
 - February 21-24 - Grassland and Forage Short Course, The Pennsylvania State University, University Park, Penn.
 - March is National Egg Month.
 - March 4-6 - School for Christmas Tree Growers, Riley Robb Hall, Cornell University, Ithaca, N.Y.
 - March 13-17 - National Farmers Union 64th Annual Convention, Denver, Colorado.
 - March 25 - Agricultural Leaders' Forum, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

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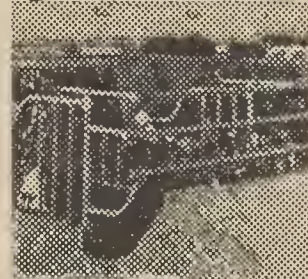
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Food For The Spirit



by Robert Clingan

YOU SIGN YOUR NAME . . .

A burglar had broken into the church office of the Broadway Tabernacle Church, New York City. The door of the safe had been blown. The pastor at that time, Dr. Allen Knight Chalmers, was called, and he watched the police sergeant in charge of forcible entry and burglary at work.

After looking the situation over, the police sergeant named the man he was sure had made the entry and blown the safe. His suspicion proved correct. He explained to Dr. Chalmers how he had known the guilty offender before the arrest: "I've seen this man's work before. Every man signs his job!"

Few if any of us are engaged in anything as dramatic, illegal, or immoral as safe-cracking. Yet it is as true of each of us as it was of the burglar that "every man signs his job." You sign your name when you do your work, for the way we do our work speaks more fully of us . . . who we are and what we are . . . than anything we can say about ourselves.

The way you do your work speaks of how you really feel about yourself, your associates, the values that are of supreme importance to you, your life goals. What a person believes about life, and even about God, discloses itself in his daily work.

Years ago a shoemaker wrote a book called "Hiram Goff's Religion." He considered himself more than just a shoemaker; he describes it in these quaint religious terms . . . "I am a shoemaker by the grace of God." As he portrayed his philosophy of life, he indicated that the quality of his workmanship, the foot com-

fort of those whose feet he fitted, the fairness of his price, the joy of his "over-the-counter" conversation, all expressed his religion. In every pair of shoes he made he knew he signed his name and declared his faith. His signature was that of a man of integrity, compassion, and faith.

There are some who believe that in a world of automation, competitive pressures for survival, and a money economy, there is no longer any place for personal values in a man's daily work.

I take issue with this point of view. No matter how complex the operation, how competitive our society becomes, how hidden the result of one man's work, that man still may know that "every man signs his job." You yourself know the kind of signature you write when you work and so do your immediate associates. How I do my daily work, the skill, the enthusiasm, the meaningful understanding of it all, is as important as the actual output of my efforts. How well do you write your name when you do your work?

HISTORY OF TILE DRAINAGE

This book was written in Seneca County, New York, the cradle of tile drainage in America. This was where John Johnston first carried on this work.

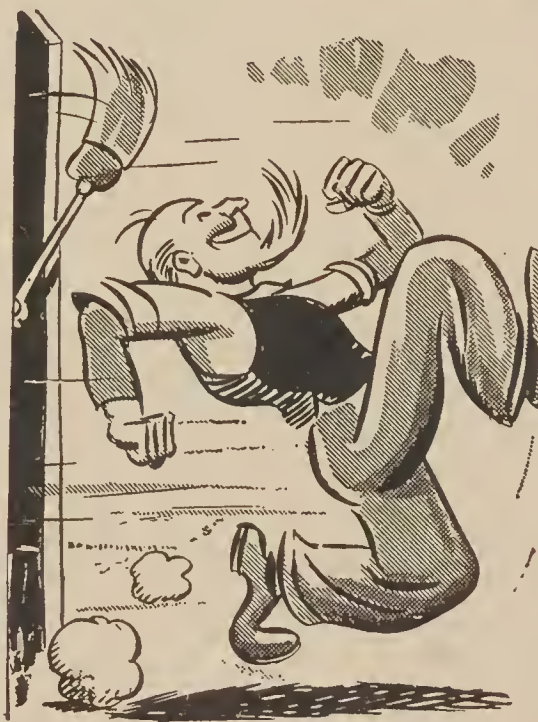
A large part of the text is quotations from the writings of drainage men-farmers during the period 1840 to 1900, covering the various materials used, prices, sizes, etc. of tile. It is well illustrated, including many pictures of individual tiles from the M. M. Weaver tile collection located in the Henry Ford Museum, Dearborn, Michigan.

Copies may be obtained by writing to Mr. M. M. Weaver, Waterloo, New York, and enclosing \$5.00 plus 50 cents for handling.

The Song of the Lazy Farmer

A woman's ways are still, to me, a deep-dark total mystery. Each one of them has got a mind that works like nothing else you'll find. Just when you think you've figured out what women folks are all about, they'll shift their gears and change their scheme and make your knowledge just a dream. Supposing, for example, you are gone from home a day or two; you're welcomed back with open arms, subjected to all sorts of charms, and fed and pampered like a king 'til you would bet most anything that it's depressing to your spouse when you even leave the house.

The fact, my friend, is you will get the biggest shock you've ever met if you persist in thinking that you're hero now instead of rat. Each time it happens, I am fooled, although by now I should be schooled; I figure that, 'cause I got kissed, I must have been most sorely missed. So next day, I decide to stay inside the house where I can lay upon the couch and rest some more 'til someone else has done



each chore. But soon's the breakfast plates are washed, my ego suddenly gets squashed. "Get out of here," Mirandy cries, "your ugly visage pains my eyes."



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News and Views from
NEW YORK AND
PENNSYLVANIA



Century Farmers — The 134th annual meeting of the New York State Agricultural Society included the citing of four York State farms by the Governor. This brings the total of the State's citations for century farms to 110. Each farm cited must have been in the family for more than 100 years, and owners must have demonstrated community leadership.

Recipients of the coveted honor this year were: Wisner Farms, Inc., Warwick, Orange County. This farm is owned by Wisner Buckbee and his son Wisner Henry Buckbee, and came into the family in 1771.

Francisco Farms, Inc., Belmont, Allegany County, originated in 1862. The present owners are Norman, Wallace and Frederick Francisco.

The Hathaway Farm, East Free-town, dates back to 1809, and is presently owned by Mr. and Mrs. Edwin Blake Bickford, Jr.

Rossdale Farms, Lowville, Lewis County, has been in the same family since 1860. Owners are Orrin F. and John H. Ross.

Principal speakers at the meeting included Dr. William I. Myers, former dean of the College of Agriculture at Cornell University; Max V. Shaul of Fultonham; Clayton R. Ford, treasurer of the Farm Credit Banks of Springfield, Massachusetts; and John Harms, Washington, D. C., agricultural editor of the Kiplinger publications.

Records Broken — Cows on the testing program of the Dairy Herd Improvement Association in Pennsylvania achieved new records in three categories: average pounds of butterfat produced; average pounds of milk produced; and the number of cows on test (164,069).

High-producing herds for each breed in fat production included: Ayrshire, C. Harold Gable & Son, Elverson; Brown Swiss, John R. Clark, New Castle; Guernsey, Gene Harding, Brookville; Holstein, Dean Hearn, Williamsburg; Jersey, Mildred E. Seeds, Downingtown; Milking Shorthorn, John R. Clark, New Castle; and Mixed, Richard Dietteric, Berwick.

Feeder Sales — The 2,135 calves sold through the six feeder calf sales sponsored by the New York Beef Cattlemen's Association during October and November, 1965, grossed over \$236,000. The Hereford, Angus and Shorthorn state breed associations awarded banners to the top consignors of calves in their breeds. Winners were:

Altamont, Hereford, Herbert Dodge, Frankfort; Angus, Bent Lee Farm, Brant Lake, Mohawk, Hereford, Theodore Mellon, Camden; Angus, Arthur Schallenberg, Westernville. Bath, Hereford, Dr. American Agriculturist, February, 1966

F. T. Joint, Bath; Angus, Dale Werth, Cohocton; Shorthorn, Dr. William Pulos, Alfred. Dryden, Hereford, Ralph Doan, Baldwinsville; Angus, G. H. & G. A. Palmer, Washington Mills; Shorthorn, Ward Dowding, Lafayette. Caledonia, Hereford, Jay Dietterick, Marion; Angus, H. R. Moody, Cattaraugus; Shorthorn, Lewis Acomb, Batavia. Pike, Hereford, James Cash, Franklinville; Angus, Emil Hoffman, Lawtons; Shorthorn, George Peterson, Delevan.

FFA Star Farmer — The honor of being named Pennsylvania's FFA Star Dairy Farmer at the 1966 State Farm Show went to 18-year-old William A. Saunders, Sugar Grove, Pennsylvania. From the time he was able to walk young William showed a deep interest in cows and spent much time at the barn. From one cow acquired in 1955 he had raised 8 heifers by 1959 . . . when his family sold off all but one (depositing the proceeds

in William's bank account) because they felt it was too much work on top of his school studies.

Undaunted, William bought two heifers, and by the time he became a senior he was milking 12 cows. In February 1965 he started a milk route; shortly before graduation he bought 19 additional cows, and is now milking 31 of a herd of 51 Holsteins and Guernseys.

Help Boost — The State University of New York Agricultural and Technical College at Canton and Cornell University have announced a joint research project aimed at stepping up the use of corn, both as silage and as high-moisture corn, in the northern New York area. County agricultural agents in the area will receive the results of the trials.



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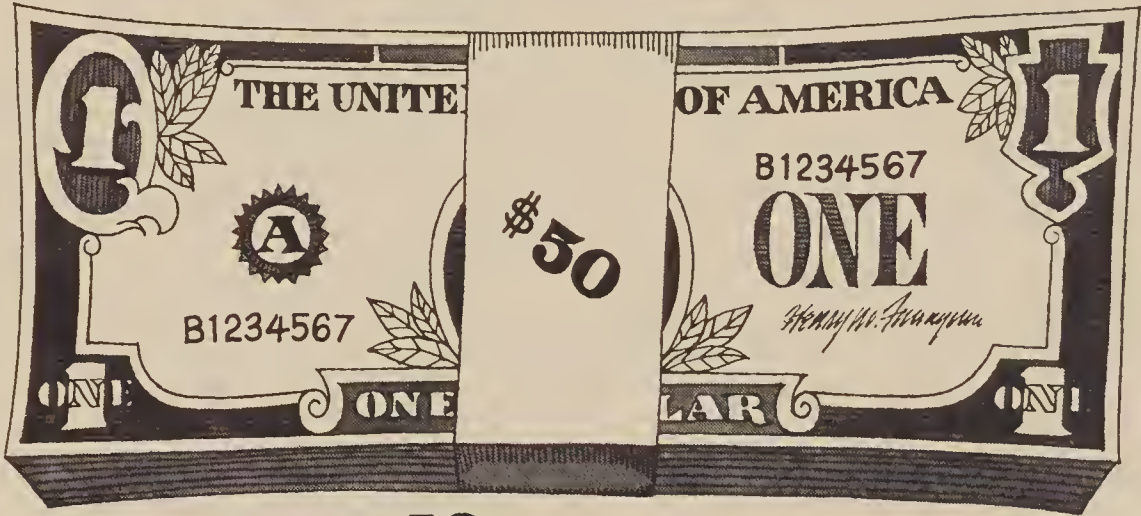
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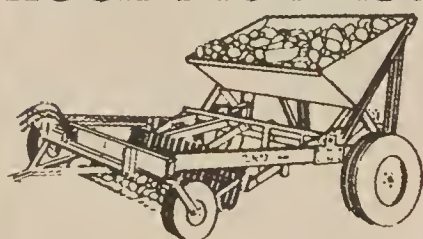
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Fred Miller harvesting corn silage.

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Manure goes on the land we own plus 800 pounds of 10-10-10, and one field checked out to produce 37 tons per acre. We figure the average yield is 28 to 30 tons.

We also sell about 300 cords of manure, enough to about pay the fertilizer bill. On land that we rent we broadcast 1,000 pounds of 10-10-10 per acre. We use atrazine and do not cultivate at all.

The cows are fed corn silage once a day in the afternoon but they get enough so it lasts them all night. Grain is fed according to IBM recommendations. We buy a 16 percent dairy ration.

I am not sold on pen stables but might adopt loose housing with free stalls. — Fred Miller, Wildwood Farm, W. Suffield, Connecticut.



Roger King sorts some apples.

FRUIT FARM

This is essentially a one-man fruit farm with about 40 acres of apples and 10 of sweet cherries.

Being on the south edge of the fruit belt, many customers come from Elmira and Binghamton; we sell everything at the farm.

The cherries are harvested "pick-'em-yourself," but we hire local help to pick apples. Help was scarce in '65, and we lost close to 500 bushels that dropped before we got to them.

Fruit growing, like all farming, has changed. While we put on 8 or 9 sprays each season fifteen years ago, we now figure on 13 sprays. Materials used are less

caustic to the leaves, which is one reason we spray oftener. Spray material costs go up steadily.

At one time we grew peaches... but no more. Apples are in sod. We apply nitrogen in the spring, and mow the grass and leave it on the ground. — Roger King, Trumansburg, N.Y.

FORAGE PROBLEMS

In our area we have a bad infestation of European chafer. This pest was first introduced into the area by a nurseryman in Wayne County, and it has spread from that point in ever-widening circles. If we leave a field in hay for three years or more, the chafer cleans out the grass and leaves alfalfa.

The adult flies emerge in June and swarm around trees by the millions. Then they lay eggs in the fields and the larvae spend the rest of the year eating grass roots. Persistent insecticides like aldrin and dieldrin are effective against the chafer larvae, but we can't use them because of possible residue on hay that might find its way into milk.

The chafer has been a real problem in lawns around here too. It will completely take out the grass in patches. Of course, insecticides can be used on lawns because there is no problem of residue.

On some rented land we grew oats on a field, followed the next year by spring barley and then by wheat. The chafer really clobbered the wheat because of a population build-up after three years of grain.

We have had to tighten up our rotations and emphasize corn more. We'll be in tough shape in the area if the alfalfa weevil spreads here because then we'll have a pest seriously attacking both grass and alfalfa. — Frank Wiley, Victor, New York.

CARROT GROWING

I used a rotovator for the first time in '65 to prepare ground for growing fresh market carrots... we grew 275 acres, about half of them went for canning and half for the fresh market. Conventional tillage tends to leave clods under the surface, and the carrots have a tough time growing straight and eight inches long, the way buyers want them.

It takes a big engine to operate the machine, covering 80 inches at a swath; we use a 90 H.P. tractor. The rear tractor wheels are set in so they are less than 80 inches apart; that way we don't leave compacted tracks where the tires traveled.

There are practically no stones in the fields where carrots are grown. Some were planted after peas were taken off and the "vator" put vines under very well.

Fertilizer... 1,000 pounds per acre of 6-12-12 is broadcast ahead of tillage; carrots are very sensitive to fertilizer damage, especially if dry weather comes soon after planting. In addition, 100 to 150

American Agriculturist, February, 1966

pounds of ammonium nitrate are broadcast and watered in with irrigation when the growing season is underway.

We used to use Stoddart Solvent and 5 to 6 cultivations for weed control, but now we cultivate far less. Stoddart Solvent now goes on in a band over the row when carrots are germinating and weeds are less than two inches high. Next we cultivate out the centers between rows (usually two cultivations), then spray Lorox on a complete-coverage basis when carrots are 4 to 6 inches high. In '65, that did the job without further cultivation.

In '65, we sprayed twice with DDT to control leafhoppers that carry the carrot yellows disease.

Carrots are harvested in pallet boxes . . . 1,000 pounds per pallet for fresh market, 1,250 pounds for cannery carrots. Many move to Boston and Buffalo right in the pallets — *Max Shaul, Schoharie County, New York*

ROUGHAGE

We have three silos at the main barn . . . 14 x 60, 16 x 50, and a 20 x 60. In addition, there is another 14 x 60 at the barn where we keep heifers.

Our first and third cuttings go mostly into the silos as haylage, with part of the first cutting going into the heifer barn. The second cut is made as hay, because weather is usually just right for haying. Our 70 cows are fed haylage all summer; they run on a six-acre field that is really only an exercise lot.

Corn fills up any silo space available in the fall (usually the two 14 x 60's and the 16 x 50). Our 56 acres of corn went better than 20 tons of silage per acre in '65. We counted one area in the field and found 26,000 to 27,000 corn plants per acre in 36-inch rows.

In one field where corn followed corn, we used a rotovator to work up the soil, then planted. It didn't leave any dead furrows, and its speed (150-200 rpm) was slow enough so stones didn't bother. When corn came up, we went once over with a peg-tooth weeder, then sprayed with a complete coverage of Atrazine. This field checked out at 30.8 tons per acre at filling time.

In another field where corn was following corn, we plowed it with a clodbuster behind the plow, planted without further harrowing, and cultivated corn once.

All fertilizer was bulk spread this year before working fields. — *Donald Shelmidine, Adams, N.Y.*

MASTITIS CONTROL

I use two sets of teat-up liners every month, alternating sets each week . . . but never using any one set more than a total of two weeks. In the past, when I've used a set of liners for as long as six weeks, I really had mastitis problems.

It costs me about a dollar a day for inflations, but it's worth it as far as anti-mastitis results are concerned. — *Parker Scoville, Goshen, New York*

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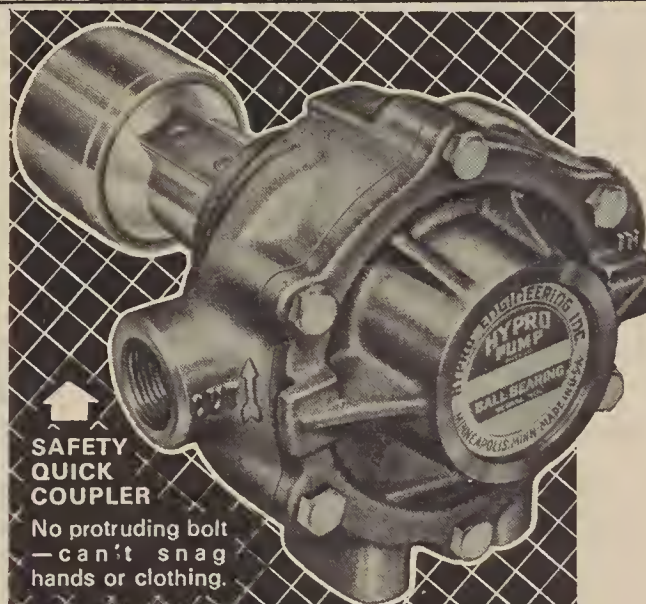
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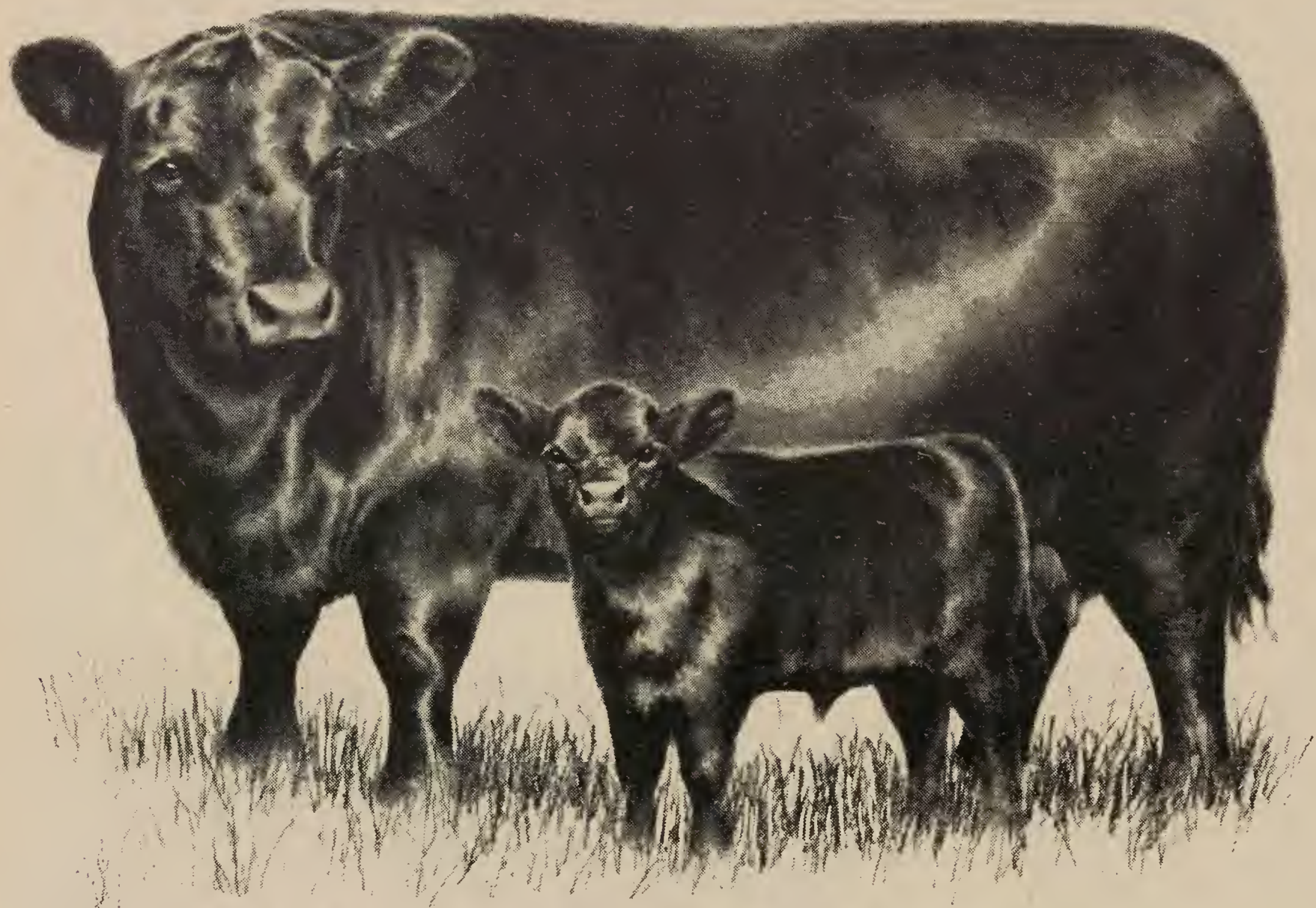
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American Agriculturist, February, 1966

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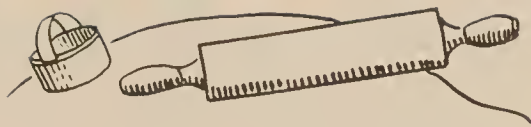
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American Agriculturist, February, 1966

Good Baking to You



No. 5 – Sweet rolls

by Alberta D. Shackelton

LAST OCTOBER I gave you a recipe for plain rolls and told you how to form the dough into many different shapes. Now I want to complete this section of my "Good Baking" series with a versatile sweet dough recipe and suggestions for using it. I think you'll have fun with this recipe, and I'm sure your family will enjoy the variety of good things you can make from it.

SWEET ROLL DOUGH

2/3 cup milk, scalded
1/2 cup sugar
1 1/2 teaspoons salt
6 tablespoons shortening
2/3 cup lukewarm water
2 packages dry active yeast
3 eggs, beaten
6 cups flour, approximate

Combine scalded milk, sugar, salt, and shortening and cool to lukewarm. Add yeast to lukewarm water, stir until dissolved, and add to milk mixture. Stir in eggs and about half the flour; beat until smooth. Add the remainder of the flour, using just enough to make a soft, easy-to-handle dough. Mix well, turn onto a floured board, and knead until smooth and elastic.

Form into a ball, place in greased bowl, brush top with soft or melted fat, and cover bowl with damp cloth. Let rise in a warm place, free from draft, until doubled in bulk. Punch down and let rise again until almost doubled in bulk. Remove to floured board and divide into two equal portions. Shape one portion as desired, keeping unused portion in refrigerator until ready to use.

Follow the BASIC STEP directions below for making Palm Leaf Rolls, Rosebuds, Sweet Buns, Butterfly Rolls, and Sticky Buns.

BASIC STEP: Roll out half of recipe for Sweet Dough into a square about 12 x 12 inches. Brush lightly with melted butter. Sprinkle with a mixture of 3/4 cup sugar, 1 teaspoon cinnamon, and 1/3 cup raisins. Roll up as for jelly roll and seal edges firmly.

Palm Leaf Rolls: Cut roll into 1 1/4 inch-wide slices. Make two cuts through each slice, parallel to cut side and extending to within 1/2 inch of the other side. Turn each "leaf" on its side and spread the three leaves apart into a fan shape. Place on greased baking sheets about 2 inches apart. Cover and let rise until doubled in bulk (3/4 to 1 hour). Bake in a moderate oven (350), 20 to 25 minutes.

While warm, ice tops with plain icing made by combining 1 cup confectioners' sugar with 1 tablespoon milk and 1/4 teaspoon vanilla.

Cinnamon Buns: Cut roll into 1 1/2 inch pieces. Place, cut side up, about 1 inch apart in greased 9 inch layer cake pan or square pan, 8 x 8 x 2 inches. Let rise until doubled in bulk. Bake in moderate oven (350), 25 to 30 minutes. Ice top, if desired, with plain icing as for Palm Leaf Rolls.

To make **Sticky Buns**, spread pans generously with butter and sprinkle generously with brown sugar and pecans before adding cut buns. About 5 minutes before baking time ends, pour over buns 1/2 cup dark corn syrup.

Rosebuds: Cut roll into pieces about 1 inch wide. Place, cut side up, in greased muffin pans, 2 1/2 x 1 1/4 inches. With sharp knife or scissors, cut crosses about 1/2 inch deep across top of buns. Cover and let rise until doubled in bulk. Brush tops lightly with a mixture of 1 egg yolk and 2 tablespoons milk, beaten together. Bake in moderate oven (350) about 20 minutes. Ice if desired.

Note: Rosebuds may also be made by the Basic Step above and spreading rolled-out dough with raspberry, strawberry, or apricot jam instead of the sugar-cinnamon-raisin mixture.

Butterfly Rolls: Cut roll into 1 1/2 inch slices. Press handle of spoon down center of roll. Place rolls, creased side up, on greased baking sheet. Cover and let rise until doubled in bulk. Bake in moderate oven (350) about 20 minutes. Frost while warm with plain icing.

Cinnamon Twists: Roll out half of Sweet Roll dough into a square about 12 x 12 inches. Brush generously with soft butter. Sprinkle center third of square with 3 tablespoons of a mixture of 1 cup sugar and 1 tablespoon cinnamon.

Fold 1/3 of dough over center third and sprinkle with 3 tablespoons of the sugar mixture. Fold remaining third of dough over the two layers. Cut into strips about 1 inch wide. Take hold of each end

of strip and twist tightly in opposite direction; seal ends firmly.

Place on greased baking sheets about 1 1/2 inches apart. Sprinkle tops with remaining sugar mixture. Cover and let rise until doubled in bulk and bake in moderate oven (350) about 25 minutes.

Queen Tarts (Kolache): Roll half of Sweet Roll dough 1/2 inch thick and cut with 3-inch cookie cutter. Place on greased baking sheets about 2 inches apart. Brush rolls with melted butter and flatten each roll slightly in center.

Cover and let rise until doubled in bulk. Press down center of each ball with fingers. Fill center with red cherry or apricot preserves or a prune mixture made with 2 cups cooked chopped prunes, 2 tablespoons sugar, 1/2 cup chopped nuts, 1 teaspoon lemon rind, and 1 teaspoon lemon juice. Bake in moderate oven (375) about 30 minutes. Sprinkle with confectioners' sugar when cool.



A good sweet roll dough recipe is always a favorite with people who like to bake with yeast,

and the Palm Leaf Rolls pictured here are a little different from the usual sweet roll shapes.



Photos: J. Walter Thompson

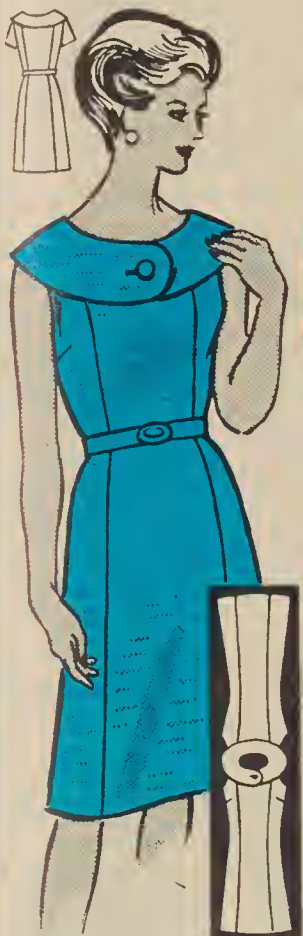
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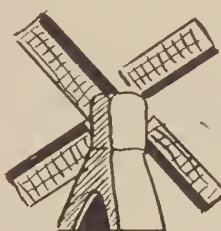
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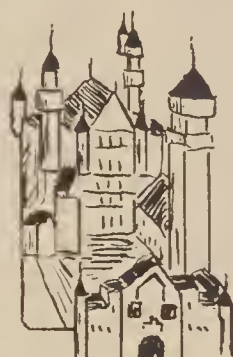
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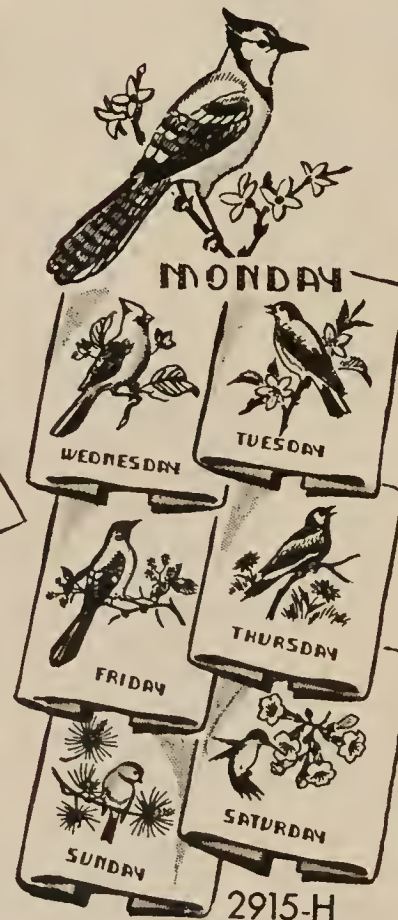
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American Agriculturist, February, 1966

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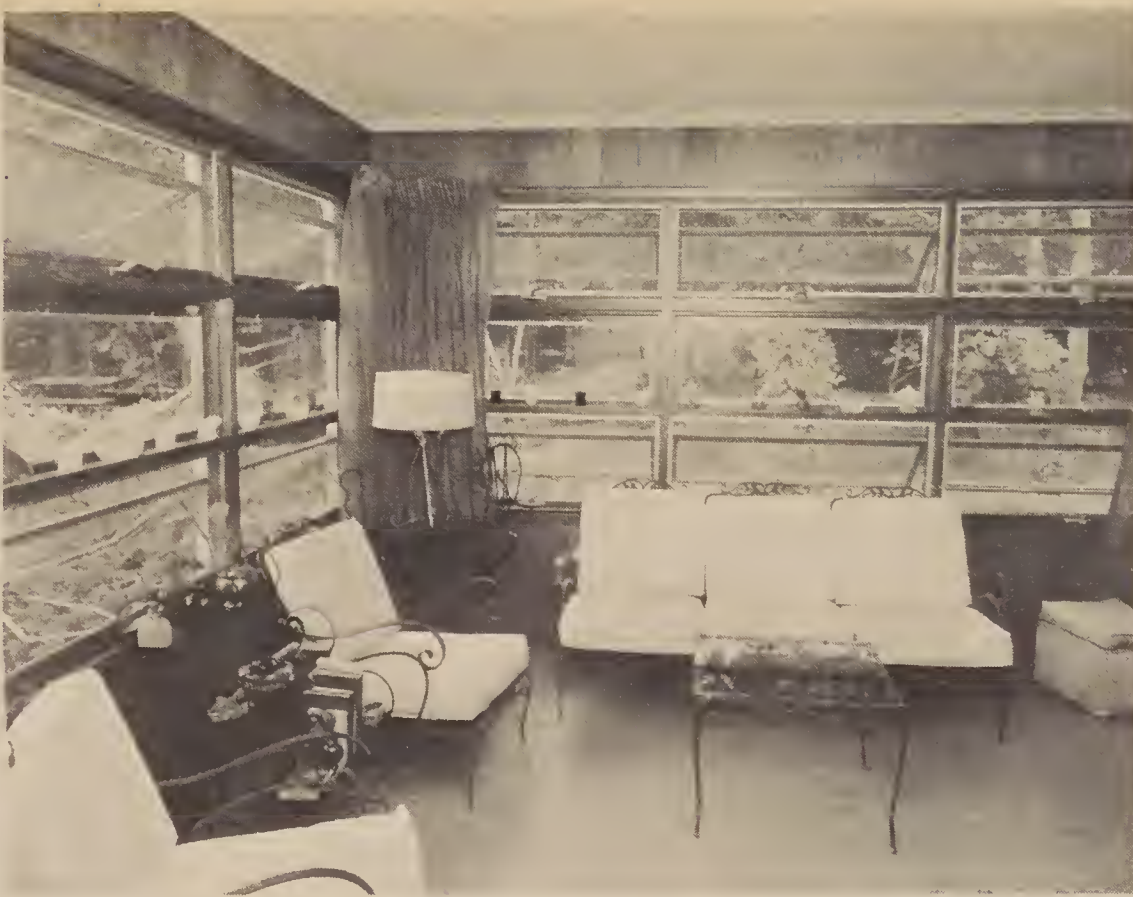
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Equally as important as selecting the right windows is to choose the kind of floor and furnishings that will be easy to care for and reduce housekeeping chores.

Photo: Sumner Rider Associates Inc.

DO YOU HAVE . . .

A recipe for any homemade soft drinks — other than root beer? This request comes from Mrs. George Thornton, Route 1, Box 259, Hartly, Del.

Instructions for using the plastic containers in which tomatoes are packed to make plant hangers or any other useful article? This request comes from Mrs. William J. Polak, Jr., Box 213A, Jamesport, N. Y. 11947.

Recipe for Buttermilk Soup and/or Buttermilk Pudding? Mrs. L. Hugunin, R. D. 1, Cayuga, N. Y. 13034, would like to find either or both of these.

Directions for knitting Elf Baby Booties? Mrs. Exilda Lippitt, 767 Greenville Rd., Woonsocket, R. I. 02895, says they have two-piece soles which are sewed together from heel to toe.

A pattern for a "Rail Fence" quilt? Mrs. Ida McIntosh, Never-

sink Star Route, Liberty, N. Y., says it includes both a rail fence and log cabin.

ALASKA!

Tours to Alaska have always been among the most popular trips offered by American Agriculturist, but each year it becomes increasingly difficult to get space for groups. For 1966, our tour agents, the Travel Service Bureau of Needham, Mass., have obtained limited space for two Alaska tours, as follows:

54 places on the SS Prince George for June 7-26

30 places on the SS Princess Patricia for July 27-August 14

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PICTURE THAT CHEERS

Mary C. Ferris

The canvas is ready, the slope gleaming white,
Freshly covered with snowfall the previous night.

And now for the colors, the greens and the reds,
The bright little snowsuits of children with sleds.

In cap and mitt brilliant as wool can be dyed,
They weave in and out and they tumble and slide.

Framed by my window, a picture that cheers
A heart somewhat burdened with grown-up years.

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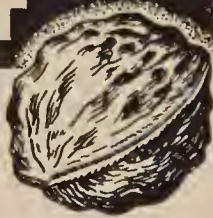
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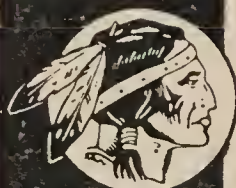
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GOLD NUGGET WINTER SQUASH



VACATION OF A LIFETIME!

Spring in Scandinavia means Midnight Sun and sunlit days, a sparkling world of fairy-tale towns, majestic fjords, and modern cities.

LATE SPRING, the loveliest season to be abroad, is the time when our next European Tour will leave New York City to visit Holland, Belgium, Germany, Switzerland, Austria, Italy, The Riviera, and France. You, like many others, have probably longed to see these fascinating countries, each so different from the other and from our own United States.

Our trip will start from New York on May 14 when we board the beautiful SS Rotterdam. We'll have a full week on this famous cruise ship before docking at Rotterdam. While in Holland, we'll see neat villages with immaculate houses, canals, dykes, fields of flowers, and the interesting cities of Amsterdam and Holland's capital, The Hague.

Our day in Belgium will include lunch at Antwerp and an overnight stay in Brussels where we'll visit the Grand Place, Palace of Justice, and Mannekin Pis.

In Germany, we'll cruise up the Rhine River, see ancient castles and steep hillsides covered with vineyards, and visit famed Heidelberg University.

Crossing the border into Switzerland, we pass through Zurich on our way to Lucerne with its unsurpassed view of the snow-capped Alps. Words fail when one tries to describe the beauty of this country. Everywhere we go we see flower-starred mountain slopes, tidy Swiss farms with cows grazing on perpendicular pastures, and high above on all sides, the dazzling white peaks of the mountains.

Next comes Austria and the most scenic sections of the Bavarian Alps. We'll visit historic Oberammergau where the famous Passion Play is held every ten years and continue through beautiful Garmisch-Partenkirchen to the lovely Tyrolian city of Innsbruck.

Making our way southward through the Brenner Pass, we come to Cortina in the Dolomites, one of Europe's most beautiful mountain ranges. We will spend seven marvelous days in Italy, visiting Venice (where gondolas will take us to our hotel), Florence, Pisa, Rome, and Genoa.

France is the last country on our itinerary! We tour the Rhone Valley and the Chateau District on our way to Paris, most glamorous

city in the world. We'll see many of its famous sights before going on to Versailles and Rouen, and finally to the seaport city of Le Havre to reboard the SS Rotterdam for another restful and delightful cruise across the Atlantic. We arrive back in New York on June 21.

Scandinavian Holiday

We also invite you to join our three week air tour to the Scandinavian countries. These dates are June 7 to 28, the nicest time of year to visit northern Europe. Our travels will take us to Denmark to see Hans Christian Andersen's Fairytale Land and "wonderful, wonderful Copenhagen," and then give us fifteen full days in Sweden and Norway.

We'll enjoy the delightful rural areas of Sweden, its world-famed weaving district, and the bright modern capital, Stockholm, one of Europe's most fascinating cities.

It's impossible to do more than hint at the variety of attractions and the fun that await you in Norway. The ever-changing scenery includes lofty mountains, sparkling fjords, beautiful blue lakes, and valley meadows covered with rare wild flowers.

All who wish can take the popular Midnight Sun Excursion north of the Arctic Circle to see the sun's full disc at midnight, and there'll be trips by horsedrawn carriage and fjord steamer to off-the-beaten-track beauty spots.

We will be glad to send you a free copy of either or both of these itineraries. They contain pictures of many of the places we will visit and day-by-day accounts of everything we will do, as well as complete information about costs. Just fill out the coupon below and mail it today.

Gordon Conklin, Editor
American Agriculturist
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Please send me, without obligation on my part, the following tour itineraries:

Grand European Tour _____

Scandinavian Holiday _____

Name _____

Address _____

(Please print)

American Agriculturist, February, 1966

STARTING PLANTS

HOW OFTEN have you wanted to plant some seeds, or transplant a house plant, only to have your "spring fever" cooled by the fact that your only available soil was out in the garden . . . and covered with snow or frozen solid? Furthermore, you recall the discouraging experiences you have had with the "dirt" out of the garden. Most garden soils are not the best for sowing seeds or for house plants because they may be low in organic matter, or are infested with diseases and weeds.

Recent research at Cornell University has shown that a very simple formula can be used to produce a superior mix for your plant-growing needs. This "instant soil" is referred to as the "Peat-Lite" mixes by Professors R. Sheldrake and J. Boodley, researchers in the departments of vegetable crops and floriculture.

Sowing Tips

When sowing seeds, fill the flat or container and firm the mix well at the edges and corners. The container must have holes in the bottom for drainage. Make rows by pressing the edge of a half-inch board to a depth of one-fourth inch. Do not cover very fine seeds, such as petunia, snapdragon and begonia. Cover most other seed with about one-fourth inch of the mix. Slip the container in a plastic bag and place in a warm place (70 to 75 degrees F.) with good light. Remove the bag when green sprouts appear.

When plants remain in the mix for long periods of time, a feeding will be necessary about every two weeks. Use a completely-soluble

"GIFT-WRAPPED" TREES

Trees for Christmas may soon be wrapped in synthetic netting to protect them from damage during shipping, says Professor Alex Dickson of Cornell's New York College of Agriculture.

The netting... first used in Canada... was used on some trees in New York State during the 1965 Christmas season. It holds the branches close to the trunk . . . then they snap back into position when the wrapping is removed.

It helps the shippers, too, because they can put twice as many wrapped trees on a truck.



"You only use one spoonful per acre." American Agriculturist, February, 1966

fertilizer at 1 to 2 tablespoons per gallon of water.

The Recipe

The Cornell "Peat-Lite Mix A" is suggested for use in the home for starting seeds or for use with most common house plants. A small quantity can be made up in a hurry. The basic ingredients are vermiculate #2 size (sold as Terralite in garden stores) and sphagnum peat moss. Here are the recipes for a bushel mix and a one-peck mix:

	One peck mix	One bushel mix
Vermiculate #2 size	4 quarts	1/2 bushel
Shredded Peat Moss	4 quarts	1/2 bushel
Limestone	1 tablespoon	4 tablespoons
Superphosphate (20%)	1 teaspoon	1 tablespoon
5-10-5	2-4 tablespoons	8-16 tablespoons

If the peat moss is slightly moistened prior to mixing, the mixing process is less dusty and a better mix results. Mix the materials on a clean surface and mix thoroughly. The resultant mix is ready to be used, or could be stored in a plastic bag until you are ready for it. It is easier to use if stored moist; the plastic bag will keep in the moisture.

This mix is very light in weight, and will hold a good supply of water and necessary oxygen.

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Weigela—Red, or Yellow, 1 to 2 ft. .25 ea.
Weigela—Variegated or Weigela Pink, 1 to 2 ft. .17 ea.
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Pink Spirea, 1 to 2 ft. .19 ea.
Pink Flowering Almond, 1 to 2 ft. .49 ea.
Tamarix—Pink Flowers, 1 to 2 ft. .29 ea.
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Scotch Broom, 1 to 2 ft. .29 ea.
Hypericum—Yellow, Collected, 1 to 2 ft. .19 ea.
Spice Bush, 1 to 2 ft. .29 ea.
Butterfly Bush—Purple, 1 to 2 ft. .49 ea.
Vitis—Purple, 1 to 2 ft. .29 ea.
Green Barberry, 1 to 2 ft. .29 ea.
Azalea—Red, White, or Pink, 1/2 to 1 ft. .59 ea.
Rose Acacia—Pink, Collected, 1 to 2 ft. .29 ea.
Red or Black Chokeberry, 1 to 2 ft. .19 ea.
Hydrangea Arborescence, Collected, 1 to 2 ft. .29 ea.
Spirea Thunbergi, 1 to 2 ft. .19 ea.
Winter Honeysuckle, 1 to 2 ft. .19 ea.
Arrowwood Viburnum, 1/2 to 1 ft. .49 ea.
Beauty Berry, Collected, 1 to 2 ft. .39 ea.

FLOWERING TREES — 1 or 2 years Old

Magnolia Grandiflora, 1/2 to 1 ft. .49 ea.
Magnolia, Niagara, 1 to 2 ft. .98 ea.
Mimosa—Pink, 3 to 4 ft. .29 ea.
Mimosa—Pink, 4 1/2 to 6 ft. .69 ea.
American Red Bud, 2 to 3 ft. .25 ea.
American Red Bud, 4 to 6 ft. .69 ea.
White Flowering Dogwood, Collected, 2 ft. .25 ea.
White Flowering Dogwood, Collected, 4 to 6 ft. .98 ea.
Pink Flowering Dogwood, 2 ft. .98 ea.
Pink Flowering Dogwood, 3 to 5 ft. .2.98 ea.
Golden Chain Tree, 1 to 2 ft. .59 ea.
Golden Rain Tree, 1 to 2 ft. .59 ea.
Smoke Tree, 1 to 2 ft. .79 ea.
Purple Leaf Plum, 2 1/2 to 4 ft. .69 ea.
Flowering Peach—Red, or Pink, 2 1/2 to 4 ft. .69 ea.
Double Pink Flowering Cherry, 3 1/2 to 5 ft. .2.95 ea.
Flowering Crab—Red, or Pink, 2 to 3 ft. .89 ea.
Chinese Red Bud, 1 to 2 ft. .49 ea.
Tree of Heaven, Collected, 3 to 5 ft. .39 ea.
Dwarf Red Buckeye, 1/2 to 1 ft. .49 ea.
Magnolia, Soulangeana, 1 to 2 ft. .98 ea.
Pink—Weeping Peach, 2 1/2 to 4 ft. .98 ea.
Red—Weeping Peach, 2 1/2 to 4 ft. .98 ea.
White Fringe, Collected, 2 to 3 ft. .98 ea.
Japanese Flowering Cherry—Dbl. White, 3 to 5 ft. .2.98 ea.
European Mountain Ash, 3 to 4 ft. .2.49 ea.
Pauls Scarlet Hawthorn—Red Blooms, 3 1/2 to 5 ft. .2.98 ea.
Big Leaf Cucumber Tree, Collected, 3 to 4 ft. .1.49 ea.
Paw Paw, Collected, 3 to 5 ft. .49 ea.
White Sumac, Collected, 2 to 3 ft. .49 ea.
Sourwood, Collected, 2 to 3 ft. .49 ea.
Yellow Buckeye, 1 to 2 ft. .49 ea.
Downy Hawthorn, 1/2 to 1 ft. .89 ea.
Dwarf White Buckeye, 1/2 to 1 ft. .69 ea.
Red Flowering Dogwood, 2 ft. .1.98 ea.
Red Flowering Dogwood, 3 to 4 ft. .3.98 ea.

SHADE TREES — 1 or 2 years Old

Silver Maple, 3 to 4 ft. .29 ea.
Silver Maple, 4 to 6 ft. .49 ea.

FRUIT TREES — 1 or 2 years Old

Belle of Georgia Peach, 2 to 3 ft. .49 ea.
Belle of Georgia Peach, 3 to 5 ft. .79 ea.
Elberta Peach, 2 to 3 ft. .49 ea., 3 to 5 ft. .79 ea.
J. H. Hale Peach, 2 to 3 ft. .49 ea., 3 to 5 ft. .79 ea.
Hale Haven Peach, 2 to 3 ft. .49 ea.
3 to 5 ft. .79 ea.
Dixie Red Peach, 2 to 3 ft. .49 ea., 3 to 5 ft. .79 ea.
Golden Jubilee Peach, 2 to 3 ft. .49 ea.
Golden Jubilee Peach, 3 to 5 ft. .79 ea.
Champion Peach, 2 to 3 ft. .49 ea., 3 to 5 ft. .79 ea.
Stayman Winesap Apple, 2 to 3 ft. .59 ea.
Stayman Winesap Apple, 4 to 6 ft. .98 ea.
Red Delicious Apple, 2 to 3 ft. .59 ea.
Red Delicious Apple, 4 to 6 ft. .98 ea.
Yellow Delicious Apple, 2 to 3 ft. .59 ea.
Yellow Delicious Apple, 4 to 6 ft. .98 ea.
Early Harvest Apple, 2 to 3 ft. .59 ea.
Early Harvest Apple, 4 to 6 ft. .98 ea.
Red Rome Beauty Apple, 2 to 3 ft. .59 ea.
Red Rome Beauty Apple, 4 to 6 ft. .98 ea.
Red Jonathan Apple, 2 to 3 ft. .59 ea.
Red Jonathan Apple, 4 to 6 ft. .98 ea.
Lodi Apple, 2 to 3 ft. .59 ea., 4 to 6 ft. .98 ea.
Montmorency Cherry, 2 to 3 ft. .98 ea.
Montmorency Cherry, 4 to 5 ft. .1.98 ea.
Black Tartarian Cherry, 2 to 3 ft. .98 ea.
Kieffer Pear, 2 to 3 ft. .98 ea.
Orient Pear, 2 to 3 ft. .98 ea.
Bartlett Pear, 2 to 3 ft. .98 ea.
Apricots—Moorpart or Early Golden, 2 to 3 ft. .69 ea.
5-N-1 Apple—5 varieties on each tree, 3 to 4 ft. .2.98 ea.
Nectarine, 2 1/2 to 4 ft. .79 ea.
Damson Plum, 2 1/2 to 4 ft. .69 ea.
Red June Plum, 2 1/2 to 4 ft. .79 ea.
Methley Plum, 2 ft. .49 ea., 3 1/2 to 5 ft. .79 ea.
Burbank Plum, 2 ft. .49 ea., 3 1/2 to 5 ft. .79 ea.

DWARF FRUIT TREES — 1 or 2 years Old

Dwarf Elberta Peach, 2 to 3 ft. .1.98 ea.
Dwarf Red Haven Peach, 2 to 3 ft. .1.98 ea.
Dwarf Belle of Georgia Peach, 2 to 3 ft. .1.98 ea.
Dwarf Golden Jubilee Peach, 2 to 3 ft. .1.98 ea.
Dwarf Red Delicious Apple, 2 to 3 ft. .1.98 ea.
Dwarf Yellow Delicious Apple, 2 to 3 ft. .1.98 ea.
Dwarf Winesap Apple, 2 to 3 ft. .1.98 ea.
Dwarf Montmorency Cherry, 2 to 3 ft. .2.49 ea.
Dwarf North Star Cherry, 2 to 3 ft. .2.49 ea.
Dwarf Bartlett Pear, 2 to 3 ft. .2.49 ea.
Dwarf Kieffer Pear, 2 to 3 ft. .2.49 ea.
Dwarf Plum—Blue, 2 to 3 ft. .1.98 ea.

VINES — 1 or 2 years Old

Red Scarlet Honeysuckle, 1 ft. .29 ea.
Wisteria, Purple, 1/2 to 1 ft. .29 ea.
Bitter Sweet, 1 ft. .19 ea.

NUT TREES — 1 or 2 years Old

Hazel Nut, 1 to 2 ft. .69 ea.
Butter Nut, 1 to 2 ft. .39 ea., 3 to 4 ft. .98 ea.
Chinese Chestnut, 1 to 2 ft. .69 ea.
3 to 5 ft. .1.69 ea.
Hardy Pecan Seedlings, 1 to 2 ft. .89 ea.
Stuart Pecans, Paper Shell, 3 1/2 to 5 ft. .3.98 ea.
Black Walnut, 1 to 2 ft. .39 ea.
English Walnut, 2 to 3 ft. .2.49 ea.
Shell Bark Hickory, 1 to 2 ft. .69 ea.
American Beech, Collected, 3 to 4 ft. .49 ea.

EVERGREENS — 1 or 2 years Old

Glossy Abelia, 1/2 to 1 ft. .29 ea.
American Holly, Collected, 1/2 to 1 ft. .29 ea.
Rhododendron, Collected, 1/2 to 1 ft. .49 ea.
Pfizer Juniper, 1/2 to 1 ft., low spreading. .59 ea.
Cherry Laurel, 1/2 to 1 ft. .29 ea.
Nandina, 1/2 to 1 ft. .49 ea.
Boxwood, 1/2 ft. .25 ea.
Irish Juniper, or Savin Juniper, 1/2 to 1 ft. .59 ea.
Red Berry Pyracantha, 1/2 to 1 ft. .49 ea.
Burfordi Holly, 1/2 to 1 ft. .49 ea.
Wax Leaf Ligustrum39 ea.
Colorado Blue Spruce, 1/2 to 1 ft. .29 ea.
Mountain Laurel, Collected, 1/2 to 1 ft. .19 ea.
Canada-Hemlock, Collected, 1/2 to 1 ft. .15 ea.
Short Leaf Pine, Collected, 1 ft. .19 ea.
Christmas Ferns, Collected. .19 ea.
Red Cedar, Collected, 1/2 to 1 ft. .15 ea.
Hetzi Holly, 1/2 ft. .49 ea.
Japanese Holly, 1/2 ft. .49 ea.
Foster Holly, 1/2 to 1 ft. .49 ea.
Yellow Berry Pyracantha, 1/2 to 1 ft. .49 ea.
Andorra Juniper, 1/2 ft. .49 ea.
Cedrus Deodara, 1/2 to 1 ft. .59 ea.
Japanese Yew, Taxus Spreading, 1/2 to 1 ft. .79 ea.
East Palatka Holly, 1/2 to 1 ft. .49 ea.
Baker Arborvitae, 1/2 to 1 ft. .59 ea.
Berckman's Arborvitae, 1/2 to 1 ft. .59 ea.
Globe Arborvitae, 1/2 ft. .59 ea.
Greek Juniper, 1/2 to 1 ft. .59 ea.
Gardenia, White Blooms, 1/2 to 1 ft. .49 ea.
Camellia Sasanqua, 1/2 to 1 ft. .69 ea.
Norway Spruce, 1/2 to 1 ft. .19 ea.
Euonymus Radicans, 1/2 to 1 ft. .19 ea.
Chinese Holly, 1/2 to 1 ft. .49 ea.
White Pine, 1 ft. .29 ea.
Austrian Pine, 1/2 to 1 ft. .19 ea.
Mugho Pine, 1/2 ft. .39 ea.

BERRY PLANTS, ETC. — 1 or 2 years Old

Black Raspberry, 1/2 to 1 ft. .29 ea.
Red Everbearing Raspberry, 1/2 to 1 ft. .29 ea.
Dewberry, 1/2 to 1 ft. .15 ea.
Figs, 1 to 2 ft. .98 ea.
Boysenberry, 1/2 to 1 ft. .39 ea.

BULBS, PERENNIALS — 1 or 2 years Old

Pampas Grass, White Plumes. .35 ea.
Hibiscus, Mallow Marvel. .09 ea.
Hollyhocks, Mixed Colors, Roots. .19 ea.
Cannas, Colors, Red, Pink, or Yellow. .19 ea.
Iris, Blue, Roots Collected. .09 ea.
Day Lilies, Roots Orange Flowers, Collected .09 ea.
Creeping Phlox, Pink or Blue. .19 ea.
Blue Bells, Roots Collected. .19 ea.
Maiden Hair Fern, Roots Collected. .19 ea.
Fancy Leaf Caladium, Red or White. .29 ea.
Gladiolus, Pink, Red, White. .05 ea.

BERRIES, FRUITS AND HEDGE PLANTS — 1 or 2 years Old

1D Rhubarb, 1 Yr. Roots. .1.00
1D Asparagus, 1 Yr. Roots. .1.00
50 Strawberry—Blakemore or Tenn. Beauty. .1.49
50 Gem Everbearing Strawberry. .2.49
100 South Privet, 1 to 2 ft. .1.98
25 North Privet, 1 to 2 ft. .1.98
25 California Privet, 1 to 2 ft. .1.98
25 Multiflora Rose, 1 to 2 ft. .1.49

Our plants are Nursery grown from cuttings, seeds, or budded stock unless otherwise stated. These have never been transplanted. Inspected by the Tennessee Dept. of Agriculture. This gives you a chance to buy at low grower prices. SATISFACTION GUARANTEED ON ARRIVAL OR WE WILL EITHER REPLACE OR REFUND YOUR MONEY. You may order as many or as few plants as you wish. Send .6D cents extra with order for postage and packing. NOTICE FREE — Orders in the amount of \$3.00 or more you get 2 flowering shrubs FREE, our choice. Orders in the amount of \$6.00 or more you get 4 flowering shrubs FREE, our choice. ORDER NOW.

SAVAGE FARM NURSERY P. O. Box 125-NY, McMinnville, Tennessee 37111



ED EASTMAN'S PAGE

ORDERS ROLL IN

Owing to a misjudgment on the part of the Publishers, Prentice-Hall, Inc. of my book "Journey to Day Before Yesterday," the orders far exceeded the supply, so that some had to wait until another edition could be printed. Although it was not the fault of American Agriculturist, we are sorry that there was some delay, and we offered to refund the money to anyone who did not wish to wait.

Very few asked for a refund. The real problem was that sales far exceeded the publishers' expectations. A person would buy one book and often put in an order for more. I have written fourteen books, but sales of "Journey to Day Before Yesterday" have exceeded all the others. Just this morning a woman wrote, "I am tired of loaning my book; I want to keep it where I can read and reread it."

A new edition is now ready, and your order will be handled promptly. Copies will be mailed postpaid for \$5.95 each (New York residents add 12 cents tax). Send check or money order to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York.



HURRAH FOR CHAIN SAWS!

Every time I see a chain saw eat its way through a limb or log like a knife through butter, with little effort on the part of the operator, I think of those endless hours I spent when I was young on one of the business ends of a crosscut saw.

We burned wood both in the kitchen range and the round oak stove in the sitting room, and the way those stoves could hog their way through a sizable wood pile even in one cold spell was surely discouraging to a teenage boy.

Home from high school, looking forward to a lazy weekend, Father would announce on Satur-

day morning that we were going to the woodlot. Too far from home to come to the house for dinner, we carried some sandwiches, pie and coffee. At noon (which I thought would never come) we built a fire, warmed up the coffee and thawed out the food.

It was often too cold to rest long, so we went right back to work to keep warm.

Did you ever saw down a big tree so close to the ground that you had to get down on your knees in the snow to pull your end of the saw? Did you ever saw logs on a skidway into blocks of stove length, and watch the saw eat its endless way down through the thick log?

Did you ever have a sawyer partner with short arms, like one of my older brothers, while yours were long so that there was constant argument between you about how to pull the saw?

When you were tired and cross after sawing all day, did you ever have your sawyer partner tell you, his voice dripping sarcasm: "I don't mind your riding the saw, but dragging your big feet is just too darn much!"

Well, if you remember those days in the woods as I do, and if you have any sawing to do, you'll buy a chain saw as fast as you can get to the store.

IS GOD UNCONSTITUTIONAL?

The Supreme Court of the United States seems determined that the name of "God" shall never be mentioned in any way in America's school rooms.

A few years ago the New York State Board of Regents, after much study and checking with leaders of different faiths, suggested a brief prayer that might be used in New York State schools without in any way violating the principles of any religious faith. But the Supreme Court ruled the Regents' prayer unconstitutional.

Also banned in the schools is the reading of the Bible or the saying of prayers in any form. The Court has even gone so far as to forbid the singing in school of the fourth stanza of "America," because of the expression: "Great God our King."

Now comes the latest ruling that it is unconstitutional, and therefore forbidden, for children in kin-

LIFE IS TOO SHORT



When many dairymen feel the necessity of producing more milk, they think only in terms of more cows. But I have maintained for years that for at least some dairymen adding more cows is not the best way to enlarge your business.

Mr. Allen M. Crissey, writing in that excellent breed publication, the Holstein-Friesian World, tells the story of a herd of cows, owned by Don Augur of Northford, Connecticut, that produced an average for the last seven years of 20,276 pounds of milk and 780 pounds of butterfat. There were 30 milkers in the herd, so the 30 cows made an annual total of over 600,000 pounds of milk.

To produce that same amount of milk with cows that produced only 10,000 pounds a year... which many dairymen consider good... and which is above the New York State average, would take 60 cows instead of 30. Now, perhaps not many dairymen can build a dairy like Mr. Augur's with an average annual production of 20,000 pounds, but a production of 15,000 pounds is not an unreasonable goal in these modern times. Why settle for less?

Stop and think what that would mean in reduced costs of production; savings in labor and feed costs alone would be tremendous.

With modern equipment, with a wife to keep your books, as many do, one man could do all the work for a 30-cow dairy with possibly a little extra help in haying.

Life is too short to spend it waiting on a cow that is not paying for your hard work.

"STICK TO YOUR RIBS"

When I was about five years old I had a girl friend... yes, sir, I got started early! This one was a neighbor lady probably not more than 35 or 40 years old... which to a small boy was old enough to have "one foot in the grave and the other on a banana peel." But with Mrs. Stevens age made no difference, for she had found the way to a boy's heart through his stomach. She could bake the best bread I have ever eaten.

Saturday was baking day, and I always tried to be on hand and ready when she pulled three of those big fat brown loaves out of her oven. Their delicious odor filled the entire house, and set me to drooling almost as bad as our big dog Pronto when he got a new bone.

Finally, Mrs. Stevens cut off a big slice, buttered it with her homemade butter, sprinkled it liberally with brown sugar, and gave it to me saying: "It will stick to your ribs, Eddie."

We lost much in good eating when women stopped making home-baked bread.

EASTMAN'S CHESTNUT

A friend of mine awoke from a long sleep to see a man bowing before him.

"I came to tell you, sir," the man said, "that you can have anything... just anything and everything you want to eat. Name it and I'll bring it."

My friend ordered the best meal he could think of, including some luxuries he had never before thought he could afford. Thereafter it was always the same.

Soon the stranger told my friend to order the most expensive clothes and they would be his. As with food and clothes, so with all else. Everything that my friend had ever dreamed of in the way of luxury he had only to ask for.

Finally, after this life of ease and luxury had gone on for several weeks, my friend said to the attendant one day: "All these things you have been giving me lately are very nice, and I don't want to seem unappreciative, but I am getting a little tired of all this stuff that I haven't earned. I would like to have something to do; I'd like to work some."

The attendant looked embarrassed, shook his head and disappeared.

Every day thereafter my friend asked for work, growing more insistent each day... but every time the attendant just shook his head and walked away.

Finally, my friend announced: "I want you to get some work for me and I want it today."

"I am so sorry, sir," the man answered, "but work is the one thing we don't have here."

Astonished and angry, my friend yelled: "No work here? Why I might just as well be in Hell!"

To which the man softly replied: "Where do you think you are?"

American Agriculturist, February, 1966



SERVICE BUREAU

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mr. Steven Climek, Cooperstown (ins. settlement)	\$85.00
Mr. Melvin Fox, White Lake (refund on order)	30.00
Mrs. R. H. Wilbur, Schenectady (payment for pens)	1.25
Mrs. George E. Hall, Bainbridge (registration refund)	15.00
Mrs. Mary McAllister, Hyndsville (service chg. refund)	10.78
Dr. Edward A. Dunlap, New York (refund on order)	1.00
Mr. Ora W. Reed, Great Valley (refund on order)	1.00
Mr. Geo. Van Vleet, Valois (refund on order)	118.89
Mr. Gerald Nichols, Churubusco (ins. settlement)	50.00
PENNSYLVANIA	
Mr. Arthur Irwin, Meshoppen (tuition refund)	507.50
Mr. Joseph Allshouse, Brookville (refund on book)	4.95
MARYLAND	
Mr. Stanley Killman, Salisbury (ins. settlement)	500.00
MAINE	
Mrs. Chester S. Smith, Farmington (refund on vitamins)	3.50
MASSACHUSETTS	
Mrs. S. F. Schweppe, S. Deerfield (refund on plans)	1.50

welcomed by reputable companies, who are happy to help us straighten out any difficulties or misunderstandings. When, on a rare occasion, a company does not answer, there is nothing we can do.

Last year we had a number of complaints against Cedar Lane Nursery Sales of Teaneck, New Jersey. These concerned orders for rose bushes either received in dried-up condition or not received at all. We wrote numerous letters to the company without success. The National Better Business Bureau advised us that, because of the unwillingness of the company officials to respond to complaints, they were referring complainants to the Postal Inspector in Charge, New York City.

We wrote the Chamber of Commerce at Teaneck to try to find out something about the company, but we had no answer. As of this date, we have no information concerning whether or not the company is still in business.

Fortunately, these complaints, while they are just as important to us, are only a very small percentage of the many, many we receive which we are able to help settle satisfactorily.

GAS TAX

"We have a problem. I made application for our gasoline tax refund and put it in the mail at the post office on September 30 between 5:30 and 6:00 p.m. About a month later we received a registered letter from the Internal Revenue Service stating that they could not allow the claim because it was postmarked October 1 instead of September 30. I wrote them that I had put the application in the mail on the 30th, but their reply was a repetition of the first letter.

"The amount involved is almost a hundred dollars, which we can ill afford to lose. What I want to know is this: Do we have any right of appeal? If so, how do we go about it?" — Mrs. M.R., N.Y.

Claims for refund of Federal tax on gasoline must be filed on or before September 30. The earliest date for filing is July 1. Apparently Mrs. M.R. mailed her claim too late to be postmarked September 30.

CAN YOU HELP?

Mr. Don Leonard, DonAnita Hereford Farms, Savona, N.Y., recently purchased an old wagon scale, made by Weeks Scale Works, and found a part is missing. He would appreciate hearing from anyone knowing of such a scale, so that he could get a diagram of the part.

* * *

Eugenia I. Stannard, 9 Eldridge St., New Haven, Conn., would like to know if anyone knew her brother Paul Ives, Poultryman, Cackle & Crow Editor & Publisher, and author of "Geese & Ducks" and other books.



Five other persons died in this head on crash that took the life of policyholder Lester B. Fuller, 22 of Vernon, Vermont.

Local agent, Donald Russell of Keene, N.H. delivers \$1,650.00 death benefits to beneficiary Samuel R. Kendall, Sr. Here is part of Mr. Kendall's letter.



"Lester worked for me off and on for six years. He and I felt we should have insurance protection for the many accidents on and off the farm. I took out policies in your Company on him. I was named beneficiary in case of death.

"We are sincerely grateful to you and your agent Don Russell for being so helpful when tragedy did strike."

**OVER 3,880,000 KILLED OR INJURED
IN TRAFFIC ACCIDENTS EACH YEAR.**

OTHER BENEFITS PAID

Bradley R. Irish, Freedom, N.Y.	\$ 314.39	Spencer R. McCaw, Oswego, N.Y.	\$ 636.87
Fell from tree—broke arm		Hit by car—broke legs and head	
Elwyn W. Holmes, Franklinville, N.Y.	540.00	Harold Gotham, Hermon, N.Y.	922.75
Combine overturned—broke leg		Hit by timber—inj. shoulder	
Richard Coleman, Cato, N.Y.	107.86	Erwin Dart Stowe, Waddington, N.Y.	117.86
Fell down stairs—broke ribs		Using power saw—inj. hand	
Peter C. Manzella, Portland, N.Y.	562.80	Carl W. Adabahr, Mariaville, N.Y.	147.84
Cranking tractor—broke mouth		Cleaning crusher—broke wrist	
James J. Gallo, Lowman, N.Y.	282.86	Bertha C. Mann, Middleburg, N.Y.	102.00
Stepped on by cow—broke leg		Fell on slippery pavement—inj. chest	
Josephine Supensky, Norwich, N.Y.	310.00	La Vera Wood, Alpine, N.Y.	206.00
Fell—broke knee		Auto acc.—whiplash injuries	
Edgar J. Bow, Merrill, N.Y.	154.28	James M. Flood, Interlaken, N.Y.	1421.00
Hit in right eye with tree limb		Auto accident—cut scalp, broke leg	
Robert J. Bays, Cortland, N.Y.	132.84	Orville Griffin, Prattsburg, N.Y.	579.48
Hit by chopper—broke foot		Hit by cable—broke jaw	
Eugene Wickham, Jr., Margaretville, N.Y.	167.13	Adam Gatz, Riverhead, N.Y.	248.94
Thrown off tractor—broke arm		Power take off—broke leg	
Peter Kuhaneck, Gowanda, N.Y.	568.32	Walter Semaschuk, Riverhead, N.Y.	146.73
Bumped by cow—broke knee		Sleigh riding—broke ankle	
Donald Mulvana, Bombay, N.Y.	101.43	Elisha J. Habermann, Orient, N.Y.	416.95
Caught in door—broke finger		Using electric saw—cut thumb	
James J. Tirolese, Corfu, N.Y.	490.70	Gene A. Walter, Divine Corners, N.Y.	339.29
Fell off roof—broke ankle and leg		Pushed into door by cow—broke hand	
Elna Ball, Ilion, N.Y.	314.28	Walter H. Brown, Barton, N.Y.	842.28
Knocked down by cow—broke elbow		Pinned by heifer—broke leg, inj. knee	
Ivan Henry Loomis, Jr., Ellisburg, N.Y.	991.30	Herbert W. Litts, Sr., Highland, N.Y.	1300.00
Caught in wagon chain—broke foot		Truck Acc.—broke leg	
Gail L. Woodhouse, Lowville, N.Y.	164.72	Earl Bishop, Hudson Falls, N.Y.	510.65
Caught in elevator—broke foot		Fell on ice—broke ankle	
Laverne Brooks, Morrisville, N.Y.	485.10	Agnes Freer, Wolcott, N.Y.	395.94
Hit fence with snowmobile—cut face		Knocked down by car—broke knee	
Ronald Davis, Georgetown, N.Y.	362.01	Carol Sloum, Perry, N.Y.	171.51
Hit by pipe frame—broke ankle		Slipped and fell into hole—inj. leg	
William Braman, Penfield, N.Y.	446.43	Fannie B. Buckle, Penn Yan, N.Y.	178.57
Knocked down by heifer—broke ribs		Slipped on ice—broke back	
Edgar Gene Moore, Johnstown, N.Y.	130.00	Waldo Wood, Middlebury Center, Penna.	1740.00
Kicked by cow—broke hand		Thrown from farm truck—broke arm	
Robert N. Reblee, Fonda, N.Y.	755.29	LeRoy Boyce, Tioga, Penna.	1385.10
Fell off moving wagon—broke back		Fell from scaffold—multiple injuries	
Henry A. Stringer, Wilson, N.Y.	307.14	James Welsh, Whitehouse Station, N.J.	285.25
Auto accident—broke arm		Fell from ladder—broke wrist	
James A. Horner, Phoenix, N.Y.	236.19	Mildred Russo, Tabernacle, N.J.	310.75
Caught in motor pulley—broke hand		Fell from stepstool—broke heel	
Reid Becker, Ionia, N.Y.	555.78	Leslie B. Orff, Waldoboro, Maine	107.14
Slipped on floor—broke shoulder		Tripped by calf—broke wrist	
Gerald R. Jones, Holcomb, N.Y.	120.00	Alfred DePres, Marlboro, N.H.	632.92
Cow crushed finger against stanchion		Fell from stepladder—broke ribs	
Lawrence Skellenger, Unionville, N.Y.	242.63	Philip Houghton, Lyndonville, Vt.	398.65
Fell through wagon board—inj. leg		Hit with chain link—inj. eye	
Herbert VanAmeron, Holley, N.Y.	132.85	Joyce Ann Brown, Jericho, Vt.	303.99
Caught in machine—broke finger		Auto accident—multiple injuries	

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(In New York State)

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Keep Your Policies Renewed

THEY BIT, TOO

"In your October issue you ran a story of a homework company which so nearly paralleled mine that I thought I would add my voice.

"I should have known better than to get mixed up with it but I found the ad in a reputable magazine. Wishing I could find something of the kind, I answered it. Their plan of operation was almost exactly like the one you described. I have yet to find a market for the products . . . which are belts, and leather baby boots.

"They got \$6.00 out of me and, while I was not exactly destitute, I couldn't afford to lose it. I have given up in disgust." — Miss H.M., Vt.

"I saw your October homework article, and it's about time someone put poor women like myself wise.

"Like a good many other women looking for an extra income, I bit. I tried aprons, ties, flies for fishing, children's wear, and a good many others. If I had the money I have sent these companies, I could buy myself a new dress . . . and maybe two. The only way a woman can make a little money is to make something herself and sell it on her own.

"I enjoyed your column very much and hope you print more like it." — Mrs. A.M., N.Y.

NO ANSWER

"Last summer I mailed a money order to Dr. Latham Therapeutic Belt Company, Webster, Wisconsin. I have never heard a word from them or never received the belt I ordered. Will you please check this for me?"

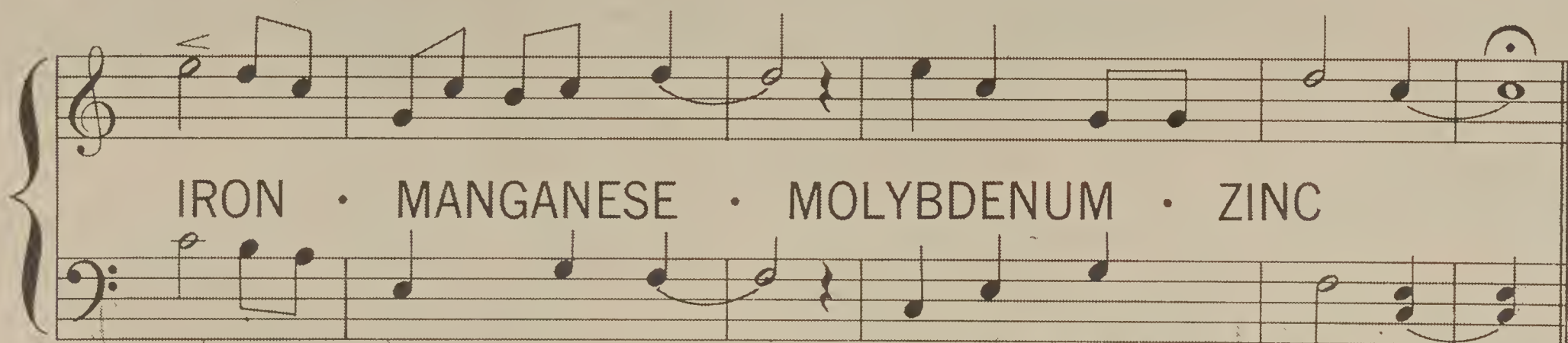
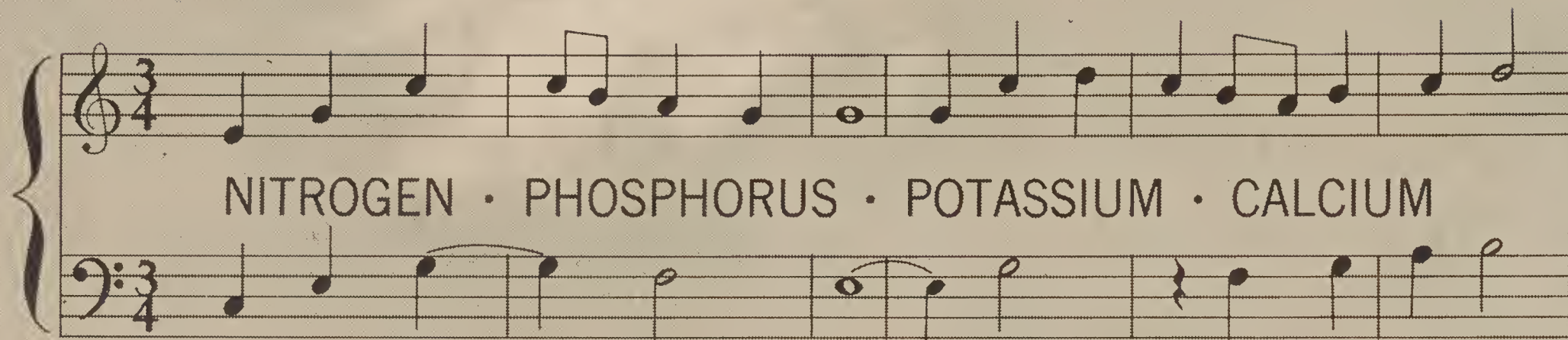
We wrote this company three times without an answer. Our letters were not returned by the Post Office so we assume they were delivered.

We had the same experience with a complaint against Rivenburg's Nurseries, Middleburgh, N. Y. Our letters to them also went unanswered.

When we receive a complaint from a subscriber against a commercial concern, our first step is to try to get both sides of the story. Then we try to arrange an adjustment or settlement which is mutually satisfactory. Almost without exception our assistance is

American Agriculturist, February, 1966

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Royster

FERTILIZERS & CHEMICALS
F. S. Royster Guano Co., Lyons, New York

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FREE BOOKLET!

Send 4-color "Bonanza Facts" booklet to help me spot hunger symptoms in crops.



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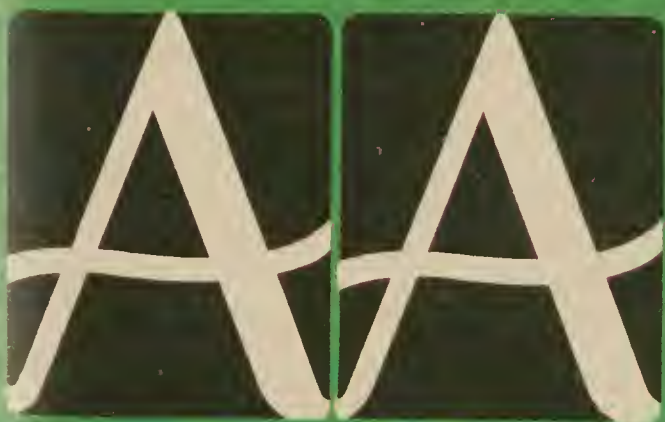
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City State.... Zip....

(Cut out and mail to F. S. Royster Guano Co., P.O. Box 1940, Norfolk, Va. 23501)



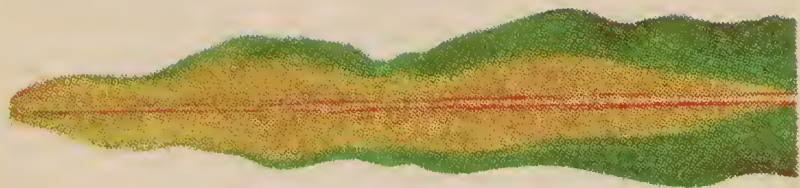
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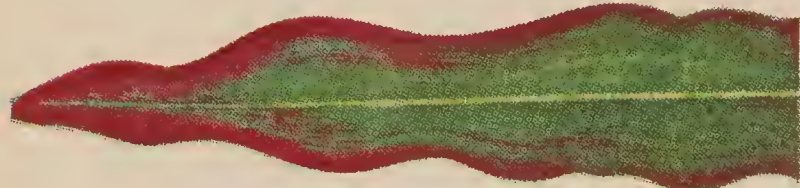
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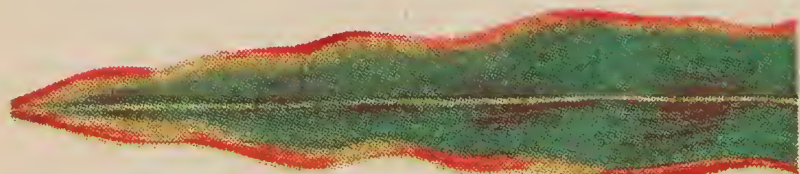
FOR THE NORTHEAST FARMER



Nitrogen deficiency
corn



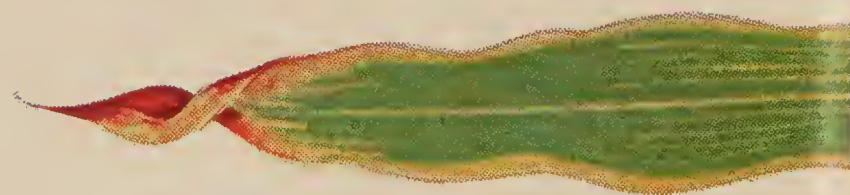
Phosphorus deficiency
corn



Potassium deficiency
corn



Sulfur deficiency
potatoes



Copper deficiency
corn



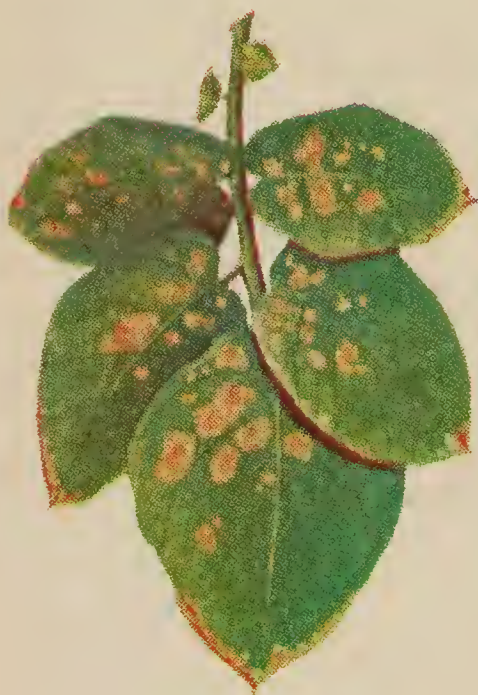
Iron deficiency
red kidney bean



Manganese deficiency
flue-cured tobacco



Boron deficiency
alfalfa



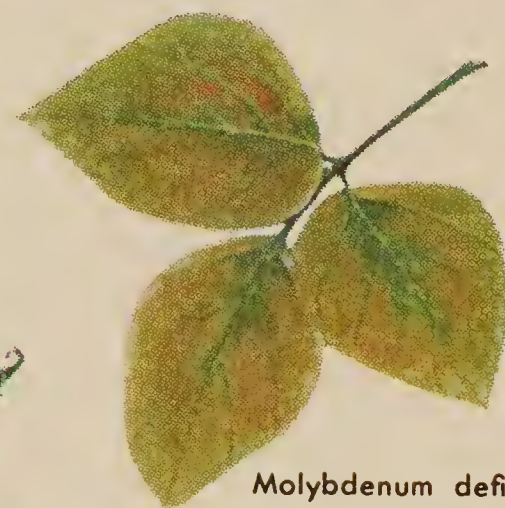
Calcium deficiency
potatoes



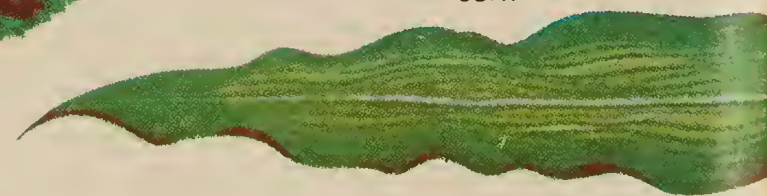
Magnesium deficiency
cotton



Chlorine deficiency
tomatoes



Molybdenum deficiency
soybeans



Zinc deficiency
corn

13 reasons why you need Bonanza

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Three—even six—plant food elements are not adequate for modern, high-profit farming. Your crops need all 13. And you get them in BONANZA . . . the best crop



Royster

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insurance, the best profit insurance you can buy. Get BONANZA in bag or bulk from your dependable Royster dealer.

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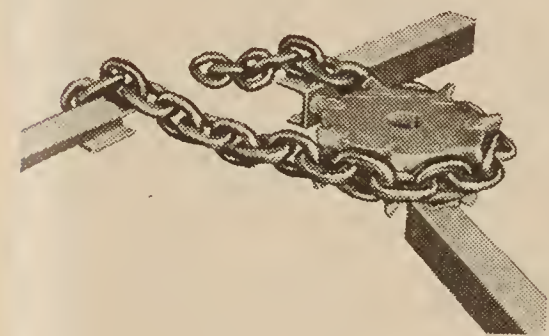
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- **Fully Automatic Operation**—power-saving chain drive!

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American Agriculturist, March, 1966



American Agriculturist
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RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 163, No. 3

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EDITORIALS

by GORDON CONKLIN



SOAK THE SCHOOLS

As a school board member at Trumansburg, New York, I've become aware of a practice called "Soaking the School." Ours is a centralized school where 25 percent of the students come from the village, 75 percent from the surrounding countryside... including parts of three counties.

The village recently installed a new sewer system and, since the three school buildings are within village limits, assessed the centralized district an annual sewer charge on a unit basis of \$10,350... scheduled to be reduced this year to \$9,540.

Sanitary engineers agree that charging on the basis of metered sewage is technically the most equitable way... but not very practical; charging on the basis of water usage is next most equitable; the unit system actually chosen is easy to administer but down the scale in terms of equity among users. Sanitary engineers also admit that, when the unit system is used, householders and schools generally are discriminated against as compared to the business community if water consumption were used as a basis of comparison. The argument is that businesses "cannot afford" to pay as much as their water use would indicate. Many a businessman piously decries farm subsidies, but gladly accepts public subsidies in a disguised form such as exists in this case.

Eleven village businesses used 3,385,500 gallons of water in a recent four quarters and paid sewer bills totaling \$2,790. The school in the same period used 2,379,530 gallons and bled through the nose for the \$10,350 I mentioned. A laundromat using more water than the school paid only \$1,170!

Maybe we're lucky... neighboring Dryden is in the throes of developing a village sewer system plan. Things are a bit in the air yet, but the Village Board figured out one item early... a proposed annual charge of between \$20,000 and \$30,000 to the school for sewer service! That school system has just slightly more students than Trumansburg's.

Most members of village boards are sincerely trying to do well an often thankless job, and I'm basically for them... even if we disagree at times. They are far more politically vulnerable than are school board members, so it's logical to try for every nickel from the schools... rather than answer to village residents and businessmen for unpopularly higher sewer rates. Besides, New York school districts are considered to be "rich" because of that flow of goodies from Albany, and now from the Fountain of Wealth beside the Potomac.

They forget that many school districts... including ours... are already spending more than the \$600 per pupil maximum state aid. It's not always realized either that Albany giveth and then immediately taketh away with mandated additional costs. The Potomacs yowl a lot, but it requires a full-time Philadelphia lawyer to get approval for some funds... when and if they are finally appropriated.

The general acceptance of any tax or municipal charge rests upon a reasonable degree of equity. The rallying cry of "taxation without representation" preceding our Revolutionary War dramatically illustrates what happens when inequities become intolerable. Rationalize it any way we choose... it's still basically unfair to discriminate against one taxpayer, or group of taxpayers, to favor another. This is especially true when the group

getting the short end of the stick... taxpayers outside the village in this case... have no direct political leverage on the village board writing the ordinance.

As the anti-pollution program gets a full head of steam in the Northeast (especially in New York), many a centralized school board will be faced with the same situation I've outlined. Maybe state and federal aid will lessen the dimension of the pressure, but rural taxpayers should keep an eye on things.

If you live outside a town or village, don't blissfully assume you have no stake in the sewer ordinance that's finally written... not if you pay school taxes in a district that may be involved in sewer charges. And if you serve on a school board likely to be involved, better be thinking about it!

S. O. B.

Ever since the first trial balloon soared aloft to test public reaction away back in 1961, I've been concerned about the sugar beet business in Central New York. Growers were rightfully interested in developing new and more profitable alternatives, especially to the growing of red kidney beans. Domestic sugar production looked attractive, particularly because our country has had a domestic sugar subsidy program of some kind almost from the nation's beginning. A "sugar daddy" can be very generous, and Uncle Sam in that role has an unusual record of being faithful besides!

However, it was obvious from the first beat of the drums in Central New York that most officialdom, and most commercial interests, were going to accentuate the positive. It also became obvious that there would be some pressure exerted to suppress the negative.

Being a naturally ornery cuss, I figured this publication should fill the vacuum of information on the negative side, knowing darn well that the plus side would receive a super abundance of resources. This, in spite of my being labeled prejudiced and Sour On Beets, which wasn't... and isn't... the case.

An article reporting the opinions of Professor C. D. Kearl of Cornell stirred up quite a storm, reporting as it did some of the problems that would be faced. Next, Hugh Cosline pulled together information on opportunities and limitations facing the development of the sugar beet industry. And we reported on the reasons for the termination in 1962 of the sugar beet business in Wisconsin.

Our purpose was then, as it is in choosing all that appears in the AA-RNY, to promote the long-run best interests of farmers and rural people in the Northeast. Along this line, I have continued to wonder whether the commitment of manpower and funds involved in establishing the sugar beet industry might have paid off far better if it had been used to develop soybean varieties adapted to New York.

Bluntly, 1965 turned out worse than even the pessimists predicted as far as New York sugar beets are concerned.

All in all, the sugar beet enterprise in 1965 has been disastrous in terms of grower returns... including the loss of grain corn left in the fields on farms where the owners were desperately trying to finish beet harvest instead of picking corn.

Hopefully, another year may give some farmers a chance to realize a return from their

very considerable investment in the venture. And may all of us renew our resolve to subject every proposal to the cold light of realism... discussing it fully, and shaking a bit of salt on glowing claims that it's a lead pipe cinch for large profits.

On page 50 of this issue you'll find a fuller report on the results of '65, and the prospects for the future.

HELD TOGETHER

Since August 1 last year, the bulk milk of members of the Konhokton Milk Producers Cooperative has been diverted from Grandview Dairies at Arkport, New York. The owner of Grandview had tried to impose a ten cents per hundredweight hauling charge on bulk milk as of that date and so cooperative leaders, headed by president Leo Briggs of Arkport, pulled the Co-op's milk out and sent it to Dairymen's League facilities.

Recently it's been reported that Grandview has been offering a ten cents per hundredweight premium to individual farmers if they would return to Grandview... plus free hauling. Apparently the offer was not in writing, and there was no specified length of time reported that the arrangement might last.

According to a conversation that Hugh Cosline had with Leo Briggs, 44 members have left the cooperative to send milk to other outlets, but not to return to Grandview. The remaining members have stood firm in rejecting the new proposal from Grandview... a commendable solidarity.

Across the years, many a sorry chapter has been written in the history of farm cooperatives by members who jumped ship for a few dollars offered by a dealer or processor whose major interest was to fragment producer solidarity so he could finally call the tune to each one individually. Farmer independence is a jealously-guarded tradition, but if bargaining power is what farmers want, they're going to have to protect their financial interests by hanging together rather than hanging separately.

The action of Konhokton Valley Cooperative members has held the line for the whole milkshed... preventing the imposition of bulk hauling charges by other dealers. In addition, it has given dairymen who deliver milk in cans a breathing spell in which to make adjustments toward bulk handling. If bulk hauling charges had been imposed, and the action imitated by other milk handlers, pressure on can producers to go bulk would have been considerably intensified.

It seems to me that Leo Briggs and his group, as well as the League and Northeast who arranged alternative markets, deserve some congratulations!

THE EQUALIZER

The Colt .45 was once known as the "great equalizer" of the West. A small man could stand just as tall in the saddle as a big man... if the little guy could haul his iron out of the holster faster than the man who outweighed him.

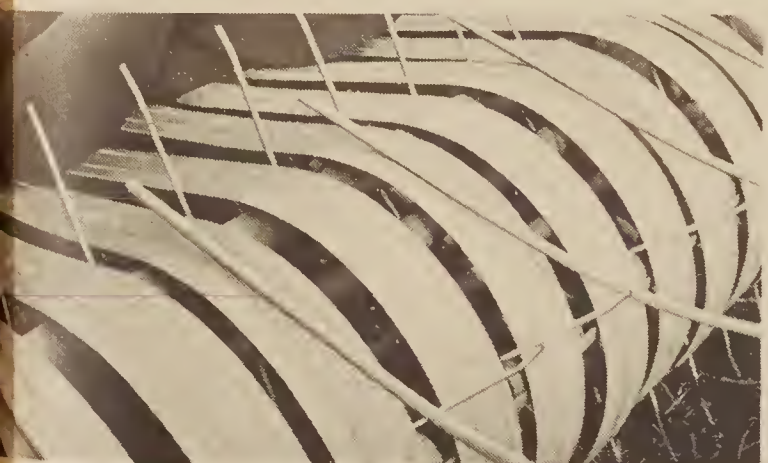
Some folks would like to see the government become the Colt .45 of our time, equalizing farmers in terms of size and opportunity. There are those who argue that it's wrong for some to be far more successful than others.

As the years go by, there are fewer things I know for sure. But one remaining conviction is this... that none of us should throw roadblocks in the paths of those who can produce most efficiently... even if they do outshine our own efforts. The benefits of such a policy are two-fold: more goods and services are produced, and the opportunity continues to move into the higher-income ranks of the efficient.

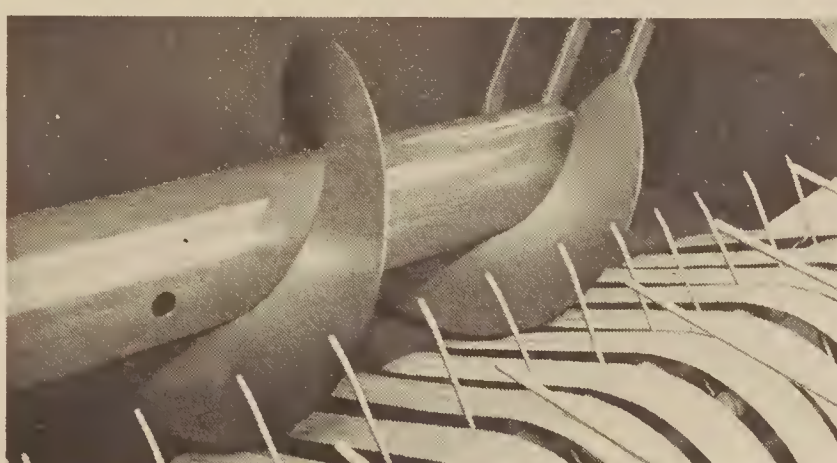
American Agriculturist, March, 1966



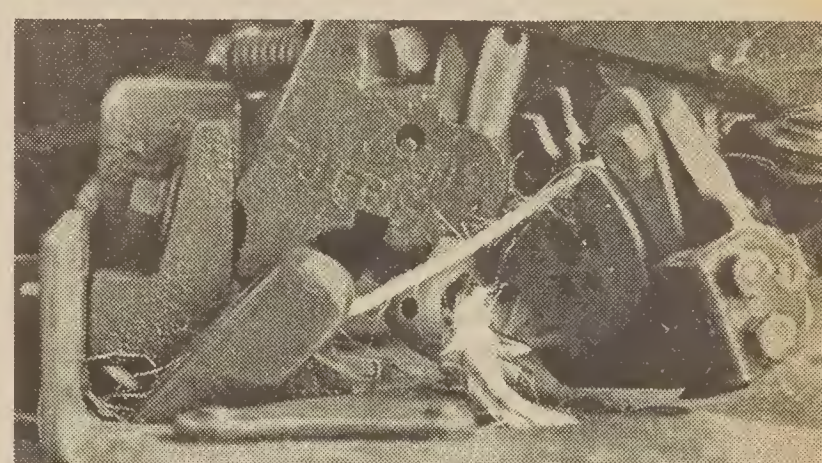
LOW-COST 37 BALER—17 TONS PER HOUR



RETRACTABLE PICKUP TEETH gently lift hay to feed deck, then retract vertically to end contact, preventing leaf damage.



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EXCLUSIVE IH KNOTTER ties a double-diameter knot 17% stronger than ordinary knots. Misses are rare in thousands of ties.

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You're the expert on timing, of course. When to cut and windrow. How long to cure, when to bale.

But from there on, IH balers—from 14 to 20 tons capacity—are the experts. On gentle handling. On preserving the highest possible total digestible nutrient. On producing premium-quality hay for feed or sale.

Look at the 37 baler, for example. Anyone who has sizable acreage in hay should do that.

You can bale up to 17 tons per hour. And those bales will have practically all those tender, nourishing leaves. Not shattered by slam-bang baler action—but right there to put more meat on stock—more milk in the tank—or bring a premium price if you sell your hay.

The 57 is the big-acreage model wanted by custom operators for its 20 ton-per-hour capacity. The 47, and the comparable 37 with many of the same features, handle up to 17 tons per hour. These three offer a choice of twine or wire tie. The new economy 27—good for up to 14 tons per hour—is a twine-tie marvel with some revolutionary features.

But each one of these four promise better hay—baled faster—and at lower per-bale cost than anything you've seen yet.

If hay is important to your income, see your IH dealer. Ask him about the IH "pay-as-you-grow" plan. It lets you get going right away on bigger hay returns.



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GETTIN' HITCHED

Here's the latest on types of tractor hitches . . . by Wes Thomas

WHEN integral tractor hitches with built-in hydraulic systems were introduced just prior to World War II, they were considered by many people to be suitable only for light-weight, relatively small tractors. However, the obvious advantages of hitch-mounted implements . . . convenience and increased productivity . . . created a demand for these hitch systems on larger tractors. Currently all the tractor manufacturers offer an integral-hitch arrangement for a wide range of tractor sizes. Recently, tractors with engine power in excess of 100 horsepower have been introduced with integral hitches.

Four Purposes

Basically, these hitches do four things:

1. Provide a means for attaching the implement and making it an integral part of the tractor, thus eliminating the need for separate carrying wheels on the implement.
2. Control the working depth of the implement.
3. Raise the implement for transport.
4. Provide automatic weight transfer to the rear wheels of the tractor.

Techniques for accomplishing these four items vary widely among the various makes of hitches. In most cases the differences among the methods for accomplishing the first three items are not of great significance to the farmer. However, through the years item 4, weight transfer, has been the subject of many competitive claims.

Weight Transfer

There are two general methods by which this is done. In the first, the hitch attempts to lift against the natural downsuck or weight of the implement. This can be done hydraulically or mechanically.

In the second method, the draft load of the implement (which is the resultant of the implement downsuck and its resistance to forward motion) is transmitted directly to the tractor.

Either method results in transfer of weight from the front wheels to the rear wheels of the tractor. The amount of weight transferred must be properly controlled; otherwise the effective weight on the front wheels will be

reduced so much that the tractor cannot be safely steered.

The effective weight added to the rear wheels is not a matter of "getting something for nothing." It is gained only by removing weight from the front wheels.

Top-Link vs. Lower-Link

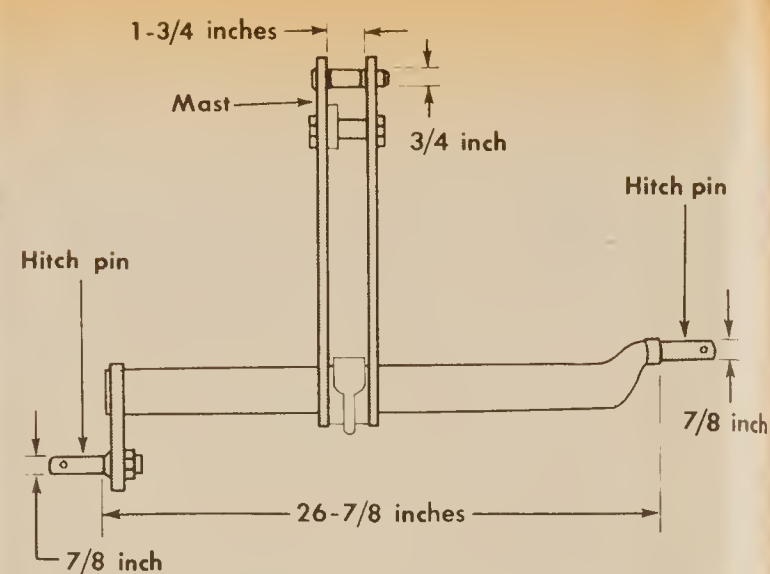
The original three-point hitch used the compressive force (or push) developed in the top link as a signal for controlling the plow. This arrangement was very satisfactory for a two-bottom plow. However, as plow size increases, the additional weight of the plow offsets the compressive force, so that there is actually less control signal in the top link. Thus, in the larger-size tractors, several manufacturers now use the tension (or pull) in the lower links as a control signal; this force increases as plow size increases.

Category I—This is the original three-point hitch. The most important dimensions are shown in the photo. This arrangement is still used by several companies.

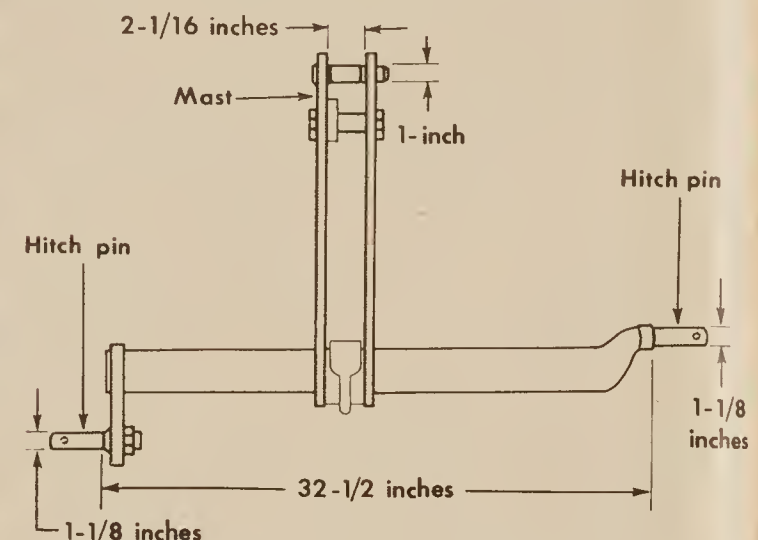
Category II—The advent of larger and heavier implements has led to the use of Category II dimensions as shown. It is possible to use Category I tools on most Category II tractors by using adapters. These adapters may be bushings for the hitch-ball holes, replaceable hitch pins, or replaceable hitch-link ends. However, it is normally only practical to use certain special-purpose tools such as post-hole diggers, fork lifts, and the like in this manner.

Usually the smaller implement will not have the structural strength for use with the larger tractor. You cannot attach a Category I hitch to a Category II implement because the hitch pins on the implement are larger than the hole in the hitch balls on the tractor. Some manufacturers, however, make it possible to change either the hitch pins or the ends of the tractor links from one size to the other.

The trend to larger tractors has produced a need for hitch parts even more rugged than those of Category II. At present, some of the larger tractors are available with hitch dimensions based on a proposed standard for Category III. In some cases, these Category III hitches are arranged for easy conversion to



Category I hitch dimensions.



Category II hitch dimensions.

the standard Category II dimensions, so that existing Category II implements can be used with the tractor. In general, implements purchased in the future specifically for use with these larger tractors should be equipped with the Category III hitch parts.

Types of Control

All hitch-mounted moldboard plows use one of three types of control to determine the depth at which the plow operates:

Draft-Response—With this arrangement, the setting of the control lever determines how much draft (or pull) is required before the hitch tries to lift the implement. As soon as it is raised slightly the draft load decreases, and the hitch holds the implement in a fixed position until the draft again changes.

Draft-response control permits plowing depth to vary with changing soil hardness. Usually, however, the actual variation in depth is not enough really to affect the quality of the plowing job. Often it's impossible even to detect these changes except by very accurate test-measuring procedures.

One advantage of this system is the fact that when operating over irregular contours, the plow can follow the contour in spite of the pitching of the tractor. Thus it provides many of the advantages of the traditional trailing-type plow in respect to uniform depth of plowing.

Position Control—Here working depth of the implement is directly proportional to the control-lever position on the tractor, but the hitch linkage is rigid. Thus, when the front wheels of the tractor raise or lower the implement is forced in the opposite direction. Obviously, this arrangement is not the best for implements which need to operate at relatively constant depth. However, it is a good type of control for those implements which need to be under direct control of the operator . . . for example, rear-mounted scrapers.

Load and Depth Control—This system combines some of the advantages of both draft response and position control. Since it is less sensitive to changes in draft, it produces a more uniform depth of operation under varying soil hardness conditions. However, its reduced sensitivity also makes it less responsive to the changes produced by irregular terrain, and thus it tends to do a less-uniform job in this situation.

(Continued on next page)

Some current-model tractors are arranged so that hitch response can be adjusted by the operator. At one extreme of the lever setting the hitch is in full-draft response; at the other extreme it is in full-position response. A number of intermediate settings permit selection of the best combination of the two for the particular job at hand.

Suction Control— With this arrangement the plow is "led" rather than lifted by the hitch. This can be visualized by thinking of the old horse-drawn, one-bottom walking plow. The plowman was able to control the depth by the up-and-down position of the hitch point along with the control provided by the plow handles. Here the tractor hydraulic system raises and lowers the implement, as well as supporting it for transport. But it is, in effect, inoperative when the implement is in working position.

When hitches were used only with the smaller tractors, the actual job of attaching the plow or other implement to the tractor hitch was never a very difficult one. The operator could back the tractor to line up approximately with the implement. Then he would dismount and move the implement by hand into the proper position to attach it to the tractor hitch.

However, this is not the case with the heavy tools normally used with the three, four, and five-plow-size tractors. For example, a four-bottom mounted plow weighs from 875 to 1,200 pounds, and cannot be slid into position by one man.

This fact has been responsible for various devices to aid "attachability." Some tractors include jaws on the end of the lower links to engage the hitch pins on the implement. The upper links also contain provision for hookup from the tractor seat.

In another arrangement an inverted U-frame is attached to the tractor hitch pins. This frame, in

turn, can be engaged with the regular hitch pins on the implement. Here the U-frame remains with the tractor when one implement is detached and another attached. This hitch arrangement also makes it possible to attach and detach without leaving the tractor seat.

Other devices which ease the chore of hooking up (but require that the operator dismount from the tractor) include:

1. Telescoping lower links, which can be adjusted in length for hookup and then returned to normal length for operation.
2. Lower links with hinged-end portions for use during hookup, but which are rigidly locked in position during normal operation.

During the past several years tractor power has increased without a corresponding increase in tractor weight. In many cases this additional power is intended to be used by operating at higher speed. However, the size implement required to utilize this power effectively without operating the tractor at excessive speed is often heavy enough so that it endangers tractor stability when in transport position.

The solution here has been a hybrid arrangement, or semi-mounted implement. A portion of the implement weight is carried in transport by one or more wheels. The hydraulic cylinder which is connected into the same circuit as the hitch extends and retracts the

wheels. In most cases a sensing arrangement is included so that the hitch can produce normal weight transfer action in the working position without operating the auxiliary lifting cylinder. However, when the hitch is operated to the full-raise position at the end of the row, the auxiliary lifting arrangement comes into operation.

Full-trailing-type implements can be arranged for weight transfer when used with tractors that have lower-link sensing. Here the hitch arms lift against the implement tongue and thus attempt to carry a portion of the weight. Special hitch-tongue arrangements are required to permit flexibility for turning between tractor and implement.



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There are some people 65 or over who have never filed claims for benefits, usually because they are hardy enough to continue working. Then there are some in the same age bracket who never qualified for Social Security benefits because they didn't work and contribute to the system over a sufficient period of time.

Now all persons 65 or over qualify for Medicare. Regular Social Security benefits, of course, are paid as before only to those who qualify after contributing to the system for a certain mandated period.

Remember, though, that anyone who is 65 before January 1, 1966 will have medical insurance protection only if he signs up at his nearest Social Security office before March 31, 1966.

American Agriculturist, March, 1966

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MEDICATED WATKINS MEDICATED TRACE MINERAL SALT... Active drug ingredient is Ethylenediamine Dihydriodide, called EDDI, for the purpose of helping prevent foot rot, soft tissue lumpy jaw and simple goiter in dairy and beef cattle. Packaged with a red imprint, it is to be used in place of plain or other trace mineral salt since it also supplies the regular amount of salt and trace minerals.

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THE MOVE TO CORN

by Gordon Conklin

IT'S ESTIMATED that there were 1,000 new silos built in New York State in 1965 . . . most of the additional capacity being used for corn silage, some for low-moisture hay crop materials. Here and there across the Northeast are dairymen using corn silage as the only roughage, being careful to supplement this low-protein material with supplemental protein feeds that also include "balancers" of vitamins and certain minerals. No question about it, corn is a VIC . . . Very Important Crop . . . in the plans of dairymen and crop farmers alike.

There are a number of reasons why corn silage is gaining in popularity with dairymen as they push cow numbers per farm up faster than crop acres per farm. Wanting to get every bit of total digestible nutrients (TDN) per acre possible, they recognize the potential of corn with its 3.6 tons of TDN from a 20-ton yield per acre, compared to hay having 2.5 tons of TDN from a 4.5-ton yield.

Mechanization

Mechanization from seed to manger or feed bunk offers another big plus for corn . . . every step can be done without lifting or lugging, in contrast to baled hay. Besides, weather is still a great frustration in hay making, whereas it's not so critical when chopping or picking corn. Sure, 1965 was a tough one in some areas because it was too wet for best corn harvest . . . and an early September frost clipped corn in many areas. But year in and year out, the odds of being stymied by weather are longer with hay than is the case with corn.

Agronomy specialists are recommending crop rotations with increased acreages of corn for well and moderately-drained soils, as well as for wetter soils on level or gentleslopes that are tile drained. Planting corn for two consecutive years or more helps give more complete weed control, and fewer acres of hay not only smooths out the labor peaks of harvest but also increases the chances of getting hay in the barn without being rained on . . . and early enough in the season to have high feed value. Besides, the advantages of nitrogen increases and better soil tilth come in the first two years of an alfalfa crop, so it's not considered so important to leave it down a longer period of time.

When it comes to growing corn in the Northeast, there are two items of advice that are summarized by the word "early" . . . get it planted early, and use varieties that are on the early-maturing side for your area. There are still far too many farmers who plant later-maturing varieties because they think total tonnage will be higher than with some of the earlier varieties.

All too often, though, they end up with a tubful of soup that is mostly water, and could have done much better in TDN per acre if they had chosen a variety that would have reached the well-dented stage by ensiling time. In fact, there has been a noticeable trend in recent years to harvest corn for silage at later stages . . . even when it's hard enough to pick.

The key is how much cow-usable nutrients are harvested per acre, not how many total tons, and corn adds to its TDN per plant very rapidly in its later stages of growth. Professor Milt Erdmann of Cornell reports a 1965 test in Sullivan County, New York, where Pa. 290

. . . an early variety . . . yielded 30.6 tons of 75 percent moisture silage and 141 bushels of 15 percent moisture shelled corn per acre. Plant breeders have done wonders in recent years to step up the yields of short-season hybrids.

High-sugar corn that does not produce grain has been used by some farmers, but most researchers conclude that it is not as good as normal corn for silage. Grainless corn does have a higher sugar content at time of harvest, but it also has more moisture and less dry matter. Feeding tests indicate that an animal would have to consume about 55 percent more of the grainless corn to obtain the same amount of dry matter as they would from regular corn silage.

In the areas of the Northeast that commonly grow corn for grain as well as for silage, there has developed a high interest in harvesting high-moisture grain corn and leaving the cobs and stalks in the field. Big advantage is earlier harvest and consequent lower field losses . . . losses that can run 25 percent or even higher if one of those hurricanes comes along!

Feeding experiments with corn grain harvested at 25, 30, and 35 percent moisture, then stored in concrete stave silos, showed no difference in feed value for dairy cows. Conclusions were that considerations other than feeding value should determine the method and timing of harvesting corn.

Researchers agree that if high-moisture shelled corn is to be stored in silos, it should be harvested as close to 30 percent moisture as possible. For storage in tight bins, the moisture percentage of shelled corn should be no more than 15 percent, with ear corn not to exceed 35 percent for cribbing in colder areas . . . 25 percent in southern Pennsylvania and Delaware.

Recipe

When it comes to a recipe for top corn yields, the farmer finds there are many ingredients. First, he should pick his best fields, for a wallowing corn crop can yield more economical feed than any other crop. In fact, many farmers having limited acreages of top-quality land are growing corn year after year on the same fields.

A soil test is basic to choosing just the right fertilizing program . . . and remember that shooting for really top yields in a rotation includes liming to a pH of 7 instead of the 6.5 once recommended by agronomists. Corn is not nearly as sensitive, however, to a lower pH as most forage crops, so if corn is to be grown for a few years on a particular field, you have flexibility as to when to apply lime to benefit following crops.

Fertilizer prescriptions must be tailored to each field on each farm, for soils vary considerably in natural potash-supplying power; fields vary in past history of cropping practices; the amount of manure applied must be cranked into the mental computer. Colleges of agriculture and commercial companies will run these tests and make recommendations.

Liquid complete fertilizers are moving into the Northeast, following the liquid nitrogen that has been around for some time. Check 'em out on the basis of cost per pound of plant nutrient, and shake a liberal amount of

salt on any claims of some magic ingredient that will work wonders. A ton of dry 10-20-20 fertilizer has 1,000 pounds of plant nutrients (10+10+20=50 percent) and may cost \$90. Liquid fertilizers are not normally as concentrated, so a comparable 1-2-2 ratio mix might be a 5-10-10; it should be worth \$45 a ton because it has half the plant nutrients of the dry goods.

If one gallon of liquid 5-10-10 costs \$2.10 and weighs 12 pounds, then 25 percent (5+10+10) of it is plant nutrient . . . or 3 pounds. In this case, each pound of plant food would cost 70 cents (\$2.10÷3), which is mighty expensive compared to nine cents per pound in that 10-20-20 dry material at \$90 a ton.

Liquid completes have been used for years in the Midwest and have the advantage of easy handling and application, do not require deep chiseling into the ground as does anhydrous ammonia. If they're available, comparable in cost, and you're set up to handle them, then you should certainly consider using them.

Seed

Choosing the seed is also a basic decision. Cornell agronomists have developed a "growing degree days" map for the entire state of New York, and have rated most readily-available hybrids as to the length of growing time needed on that basis. Penn State advises choosing a corn for silage that is a high grain-yielding hybrid one maturity group later than the maturity best suited for grain production on your farm.

There are dozens of varieties available, but your choice will narrow down to a relatively few if you visit with your county agent and go over recommendations by your college of agriculture. Keep in mind the generalization on which most of the experts agree . . . that there is still far too much long-season corn being planted for silage in the Northeast.

Minimum tillage has become a reality on many farms . . . it's best defined as going over the ground only as many times as is necessary. Sometimes this may mean only once with a plow and trailing clodbuster, or it may mean several times. Farmer experience and college research agree, though, that it's certainly unnecessary to beat soil into the ground as was once thought necessary. Save yourself some money by experimenting with just how little tillage you can get away with for corn . . . and check with your neighbors for their experience.

Planting Time

Corn planting time used to be "when the oak leaves are as big as squirrels' ears," but that may be too late. Modern seed treatment gives giant-sized tummyaches to soil organisms and insects when they tackle corn seed, so it can lie dormant in cool ground for considerable periods. Getting corn in early can't be overemphasized . . . and this challenges the ingenuity of labor-short farmers.

Some enterprising operators hire top-quality moonlighters from manufacturing or service industries, pay them wages that look terrific . . . but they get corn in at a terrific rate! Arrangements should be made well in

(Continued on page 10)

American Agriculturist, March, 1966

1966 CHEMICAL WEED CONTROL RECOMMENDATIONS

Department of Agronomy Cornell University

CORN

TIME OF APPLICATION	CHEMICAL	RATE PER ACRE	REMARKS
At Planting	Atrazine (S0-W)	2 pounds in 20 to 30 gallons of water	Mount spray nozzles behind planter packer wheel. Spray 12-18 inch band directly over row. Amount recommended will treat 2 to 3 acres depending upon width of band. Band application reduces herbicide cost. Good control of annual grasses and broadleaved weeds which germinate from seed can be expected if adequate rainfall follows treatment. Agitation in spray tank in addition to regular by-pass is necessary. Early cultivation is necessary to control weeds between rows.
Pre-emergence 3 to 5 days after planting	2,4-D low volatile ester	1½ pounds in 10 to 30 gallons of water	Do not use on light soils. Injury often occurs on light soils if rain follows treatment during period of corn germination and emergence. Low volatile esters safer and more effective than amines. Pre-emergence treatments desirable where moisture conditions may prevent early cultivation. May be ineffective if dry weather follows treatment. Cultivation necessary for grass control and the control of perennial broadleaved weeds. Do not use in areas where susceptible crops such as tomatoes and grapes are grown.
1 to 5 days after planting	Atrazine (S0-W)	1½ to 2 pounds in 20 to 30 gallons of water	Recommended where annual grasses are a problem. Rainfall during period of weed seed germination is necessary for effective results. Observe fields frequently during period of corn emergence. If weeds do not show injury within 14 days after corn emergence, the corn should be cultivated. Pre-emergence treatments specifically for the control of quackgrass have been highly variable. Cultivation necessary to control perennial broadleaved weeds. Do not plant sugar beets the year following Atrazine.
1 to 5 days after planting	Linuron (S0-W)	1¼ pounds in 20 to 30 gallons of water	Do not apply after corn emerges. Plant corn at least 1¼ inches deep if Linuron is to be used. Heavy rains during germination and emergence of corn may cause injury and stand reduction. Good control of annual broadleaved weeds and annual grasses. Do not use on sandy soils. There is no indication of a soil residue problem where Linuron is used. Cultivation necessary to control quackgrass and perennial broadleaved weeds.
Post-emergence Corn 2 to 10 inches tall	2,4-D amine	½ pound in 10 to 30 gallons of water	Corn at this stage is most resistant to injury and broadleaved weeds are most susceptible. Annual grasses are not controlled. For corn taller than 10 inches, use drop nozzles. 2,4-D will cause leaf rolling which may be more noticeable if hot, dry weather follows treatment. Do not cultivate for 14 days following treatment because corn may be brittle. Cultivation is necessary for the control of grasses and perennial broadleaved weeds.
	2,4-D low volatile ester	¼ pound in 10 to 30 gallons of water	Rate recommended is equal in effectiveness to ½ pound of amine. 2,4-D esters not recommended in areas where susceptible crops such as tomatoes and grapes are growing. Other comments under 2,4-D amine above apply.
Within 21 days after corn is planted	Atrazine (S0-W)	1 to 2 pounds in 20 to 30 gallons of water	For best results, apply within 21 days after corn planting and before weeds exceed 1½ inches tall. Good control of annual broadleaved weeds and annual grasses if rainfall is sufficient to carry chemical into the root zone of the weeds. If broadleaved weeds do not show injury 14 days after treatment, the corn should be cultivated. Agitation in spray tank in addition to regular by-pass is necessary. If rates in excess of 2 pounds per acre are used, the field should be planted to corn the following year. Do not plant sugar beets on fields treated with any rate of Atrazine the previous year. Cultivation necessary to control quackgrass and perennial broadleaved weeds.

NUTSEDEGE

(Nutgrass)

Early post-emergence	Atrazine (S0-W)	3 pounds in 30 gallons of water	Apply early post-emergence when the nutsedge is in the spike stage. Use this rate of Atrazine only on fields that will be planted to corn the following year. Atrazine combined with cultivation will control those plants that germinate and prevents continued re-infestation of soil with tubers. The treatment has no effect on dormant tubers in the soil. Cultivation is a necessary part of control.
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QUACKGRASS

on ground to be planted to corn and followed by small grains or legumes following year

Pre-plow and pre- or early post-emergence	Amitrole-T plus Atrazine (S0-W)	2 pounds in 30 gallons of water plowed down plus 2 pounds applied pre- or early post- to corn	Apply 2 pounds per acre of Amitrole-T to quackgrass sod in spring when quackgrass is 4 to 6 inches tall. Plow in 10 to 14 days but not before the quackgrass foliage has turned white. Corn can be planted immediately after plowing if desired. If not planted, do not allow quackgrass to make regrowth before planting. Apply 2 pounds of Atrazine pre- or early post-emergence. Cultivate when corn is 3 to 5 inches tall. A second cultivation may be desirable. Fields so treated can be planted to oats and legume seeding the following year. Oat seedlings may be injured on some fields or spots within the field.
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HEAVY STANDS where fields will be planted to corn the following year

Pre-plow and pre- or early post-emergence	Atrazine plus Atrazine (S0-W)	2 pounds plowed down plus 2 pounds pre- or early post-emergence	Should be used only on areas to be planted to corn the following year. Apply 2 pounds of Atrazine to quackgrass sod in spring when quackgrass is 4 to 6 inches tall. Delay plowing for 10 to 14 days. Foliage injury need not be evident before plowing. Corn may be planted immediately after plowing if desired. Apply 2 pounds of Atrazine pre- or early post-emergence. Cultivation is recommended to help in quackgrass control and delay those weeds resistant to Atrazine.
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MODERATE STANDS where fields are to be used for sugar beets or small grains

Fall treatment	Nitrogen plus Dalapon	50 pounds of actual nitrogen followed by 10 pounds of dalapon	Suggested for soils that are to be fall plowed for sugar beets or soils that can be plowed early in spring. Apply 50 pounds of actual nitrogen in late August to a uniformly grazed or mowed quackgrass sod. About October 1 or when quackgrass shows response from nitrogen application, apply dalapon. Delay 10 to 14 days before plowing. If spring plowed, do so before quackgrass shows regrowth. Follow until time for planting crop. Cultivation of corn is essential part of treatment.
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To corn

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Planting in narrow rows has become a popular topic of conversation; a few farmers and researchers have blazed some interesting trails in that direction. Research results haven't been very consistent for narrow-row corn, somewhere in the range of 0 to 10 percent increase in yield by going from 40 to 30-inch rows.

The real impetus for narrower rows has been in the Midwest, where substantial soybean yield advantages have been apparent for a long time when comparing 38 or 40-inch rows with 24 to 30-inch ones. With soybeans, the yield advantage has been between 10 and 15 percent . . . and remarkably consistent. Farmers in the southern part of the Northeast who grow soybeans have a real incentive to consider tooling up to handle both corn and soybeans in narrower rows, but there are still lots of unanswered questions for those farmers who don't have that combination of crops.

It looks now as though the ideal spacing for corn may be equal in all directions . . . say the corn plants 24 inches apart in the row, and the rows 24 inches apart. This gives maximum leaf exposure to sunlight, and it's the photosynthetic process in response to Old Sol's warming rays that creates feed.

But there are some real problems to overcome, particularly in equipment designed for such narrow rows. Planter units can easily shift along tool bars to any row width, but don't forget cultivators, choppers, tractor tire widths, and corn pickers when considering a change in row spacing. It's safe to say that most corn planted in the Northeast in 1966 will be in 34, 36, 38, or 40-inch row spacing.

Plant Population

Row width, of course, is one determinant of plant population per acre . . . and the trend is upward. On the very best soils, the general recommendation is for 20,000 plants per acre (22,000 to 24,000 kernels dropped), ranging on down to 14,000 plants per acre on shallow soils where moderate drought damage may be expected.

Water is a limiting factor, of course, and high plant populations don't perform any magic without enough rain. In fact, more plants per acre on dryer or shallower soils . . . or in a dry year on better soils . . . will usually result in more barren stalks, or "skips" on ears where grain is located erratically on the cob. Remember that some hybrids don't perform at high populations as well as others, so before deciding to rattle the seed

down the hoes at a faster clip, better visit with your seedsman.

The water-handling characteristics of your particular soil, and a guess as to how much rain we'll have in '66, are major considerations when deciding on which sprocket wheel to use on the planter. In general, though, the move is toward more plants per acre than was the case a decade ago.

Weed Control

Weed control on corn has shifted heavily toward chemicals . . . and for good reasons. It's usually cheaper than cultivation, does a better job, and eliminates a task that comes during haying time. Check the specific recommendations made by Stan Fertig of Cornell that accompany this article, and stay away from the untrue old adage that "if a little does some good, a lot will do even better." Note special recommendations for quackgrass and nutsedge . . . two of the most persistent villains in the weed lineup.

As northeastern farmers borrow some Corn Belt techniques and go to corn after corn on the same fields, they will inevitably see a build-up of soil insects attacking the crop . . . notably the northern corn rootworm. Long-lasting chemicals like dieldrin and aldrin will clobber these insects, but don't use them on corn that has any chance of ending up in the silo. In fact, a recent order by the USDA forbids dieldrin's use on corn.

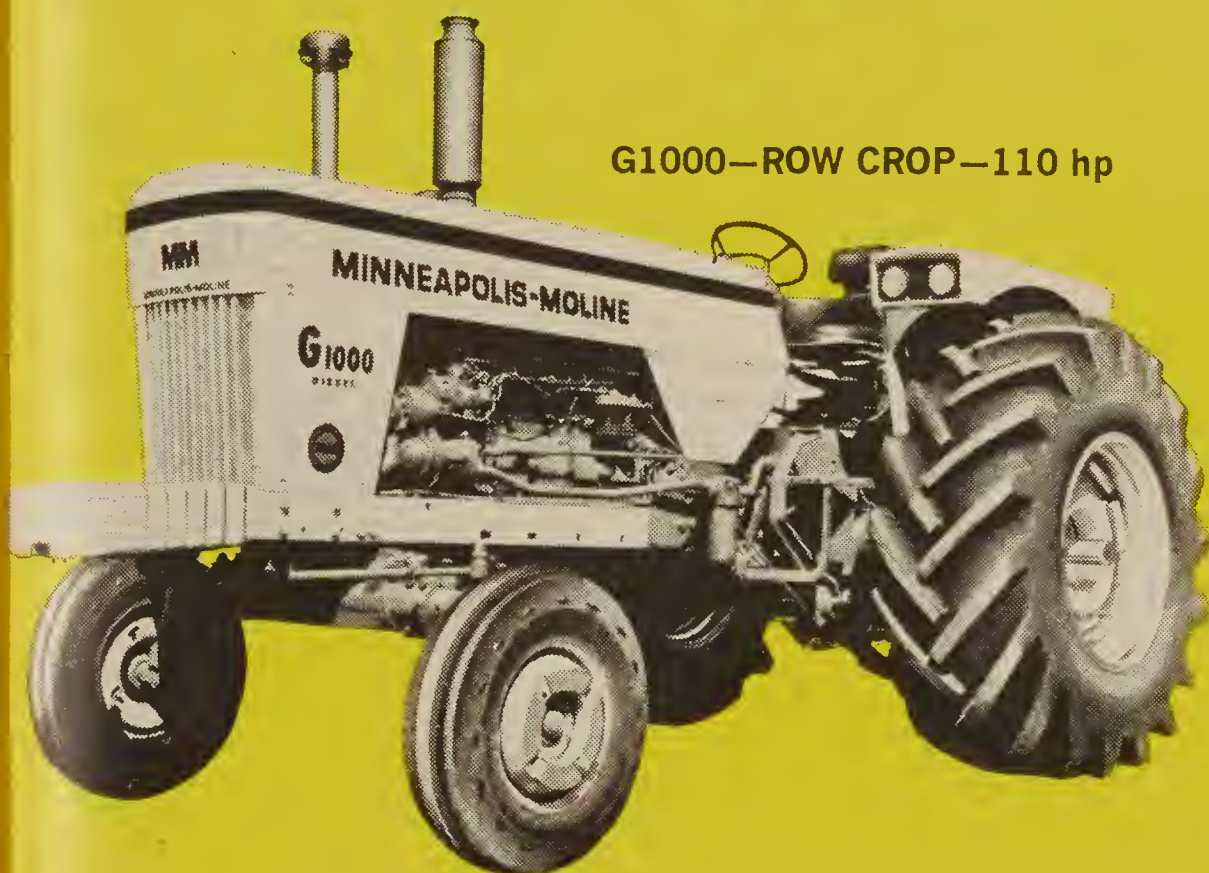
Instead, use diazinon as a band treatment at planting . . . one pound of active ingredient per acre . . . or apply post-emergence in a band over the rows. The same chemical, at two pounds active ingredient per acre, will clean up wireworms that also may cut corn yields. Entomologists point out that the rootworm is most troublesome on soils well supplied with moisture, so this critter could really break loose if we get plenty of rain in '66 after three years of dry weather.

Come next fall, if you've done everything as well as you know how, there should be 20 to 30 tons of corn silage standing tall in your fields. This level of yield isn't away out there somewhere; it's being reached by a growing number of farmers every year. Whether you harvest the entire plant, or "enrich" the silage by taking only ears from every other row with new choppers available, or use only the ears (or grain) as high-moisture concentrate . . . it's a feed crop that's hard to beat!

Editor's note: *Many thanks to college of agriculture specialists whose efforts contributed to the preparation of this article, including Professor Milton Erdmann of Cornell, Professor James Eakin at Penn State, and Professor Martin Weeks at the University of Massachusetts.*



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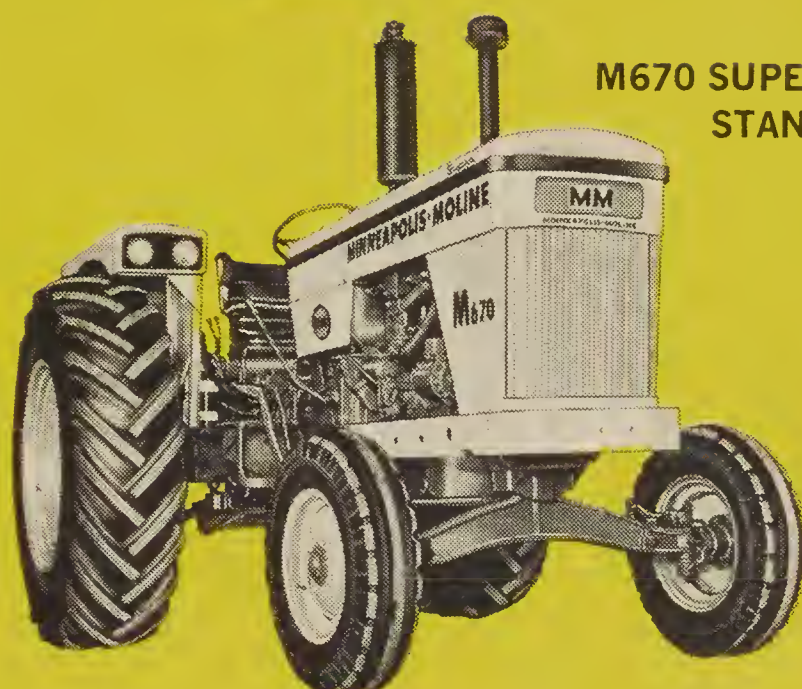
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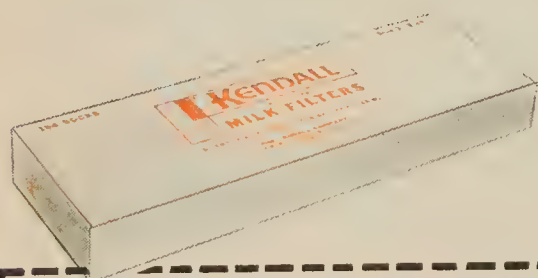
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Successful Harvest — The mechanical apple harvester developed at Cornell University was a "smacking success" in the fall of 1965, according to Professor Everett D. Markwardt. From the technical standpoint it is now possible, says Professor Markwardt, to build a commercial model of the machine, and the University hopes to interest a commercial firm in doing so.

Research Tool — New York State Agricultural Experiment Station, Geneva, has recently acquired a mass spectrophotometer. It will be used to identify chemical compounds in foods and will cut the time required to make such tests to about one-tenth.

New Uses for Apples — A newly-developed drying process produces "apple flakes" that can be used in a number of ways. They can be mixed instantly in water to make sauce, or used in dry form in dessert and cake mixes, or in dry cereals.

Scientists say that the flakes retain their natural apple flavor and color, and help to keep cakes moist. Developers are now testing their use in apple butter, candies, and other baked goods. The six apple varieties used so far are Rome Beauty, Red Delicious,

Golden Delicious, Gravenstein, Winesap and Yellow Newtown.

Peach Leaf Curl — Now that the leaves are off the trees it is an ideal time to spray for peach leaf-curl, the cause of thickened, blistered or puckered appearance and reddish or purplish coloring on new peach leaves.

The curl fungus overwinters in the form of spores on the bud scales and twigs. A thorough application of 1½ pounds of Ferbam per 100 gallons (2 tablespoons per gallon or ½ pound per 25 gallons) when the trees are dormant will control the disease. It can be applied any time from fall until just before the buds swell in early March. Care should be taken to hit every side of every twig and branch.

"Shrinking" Apple Trees — Professor M. B. Hoffman, head of the Department of Pomology at Cornell University, says that the apple industry in New York State had better start thinking about "shrinking" apple trees now to boost the crop and stay competitive in coming years. He suggested squeezing more trees into the available space with the "hedgerow system," with trees spaced 15 to 20 feet within the row.

Apple Variety Information — A mimeographed report is available listing the characteristics of 15 of the more important old and new

apple varieties, including McIntosh, Rhode Island Greening, Cortland, Delicious, Golden Delicious, Rome, Spy, Baldwin, Ida Red, Monroe, Wayne, Spartan, Mutus, Spigold, and one as yet unnamed, NY 45500-5. This is a cross of Red Delicious and McIntosh, to be named in the fall of 1966. If you have ideas for an attractive name, send them to John Einset, Experiment Station, Geneva, N.Y.

For a copy of the report write to Roger Way, Experiment Station, Geneva, N.Y.

New Fungicide — Leading plant pathologists agree that the new fungicide, Botran, has great promise in helping to reduce transit-storage losses due to spoilage of fruits and vegetables.

Botran is cleared for pre-harvest application to a dozen or more fruits and vegetables, including peaches, cherries, strawberries, grapes, tomatoes, string beans, and lettuce. Post-harvest use is authorized on peaches for canning, sweet cherries, and sweet potatoes.

Full-scale marketing under Upjohn's new TUCO label is scheduled for early this year.

Elusive Birds — Cornell University scientists are now trying birth control pills to suppress populations of nuisance birds, particularly starlings. Several kinds of chemical sterilants have been fed to starlings at feeding stations on an experimental farm near Hector, New York.



Potato Chips — Professor Ora Smith of Cornell University is experimenting with microwave ovens for finishing potato chips that have been precooked with gas heat. Microwave heat can evaporate water inside spud's tissues without heating cellular structure as much as would regular heat.

Early Harvest Vegetables — Experiments have been conducted by Cornell University vegetable crops specialists with plastic tunnels in which vegetables for early harvest were grown. Best results came with air-supported row covers with irrigation. Ventilation was most important, and heat was added when there was danger of frost. Tomato varieties planted included Fireball and Manhattan; Triumph cucumbers and Harper Hybrid muskmelons were also grown.

Potato Yearbook — The 1965 issue of the American Potato Yearbook is off the press, packed with vital information. A feature is the illustrated article, "A Special Report on Polyram as a new Control Measure for Early and Late Blight" by Norman E. Krog of the Research and Development Department of Niagara Chemical

Division. The price is \$2.00. To assure yourself of a copy, write to the American Potato Yearbook, P.O. Box 398, Westfield, New Jersey, 07091.

New Potato Variety — "Monona" is the name of a new seed potato developed by Frito-Lay, Inc. in cooperation with the USDA's program at Beltsville, Maryland. It is a cross of Chippewa and Katahdin, and is described as having high yield, short growth period, resistance to common disease and fungus, and excellent storage qualities.

Canada's Nematodes — Until this summer, only two areas in North America . . . Newfoundland and Long Island . . . were known to be infested by the golden nematode. Now they have been discovered on Vancouver Island, British Columbia.

Much of the seed used by U.S.



Closeup of golden nematode cysts.

growers comes from Canada (although not from this area) and steps are being taken by USDA officials to protect U. S. growers by clamping a quarantine on potatoes from British Columbia. Meanwhile, strong measures were taken in British Columbia to prevent the spread of infestation.

Capsuled Insecticides — A new technique, wherein insecticides and fungicides will be enclosed in capsules and therefore released over a period of time, will probably make insect control easier and safer in the future.

Tests have been conducted at the USDA research laboratory at Ankeny, Iowa, in the control of the European corn borer, with 90 percent effectiveness.

Scientists feel that a single application of insecticide or fungicide in "encapsulated" form could be effective all season long, and the coating can protect against toxic effect. In the case of soil insecticides, it is felt that a single application could last several seasons.

Bean Picker — The Chisholm-Ryder Company claims that their 1965 Hi-Boy mechanical snap bean picker will pick more beans per acre than older models of the same make. And field trials seem to bear out the claim. Under commercial conditions a 10 percent increase in yield may amount to 250 pounds per acre

American Agriculturist, March, 1966

**"You can almost see the high energy
POP! out of this DEKALB SILAGE"**



We're exaggerating of course about the energy "popping out" but we're not when we say DeKalb Brand XL varieties are bred to give milk producers the kind of silage they want to increase milk production.

These XL and other Breakthru varieties produce high total tonnages of nutritious, succulent silage per acre. And the disease and insect tolerance which is

bred into them helps keep plants green as the grain ripens. This increases the length of the harvest period and helps make more palatable silage.

Many farmers are finding DeKalb XL and Breakthru varieties for silage help out on faster gains in the feed lot and good increases in milk production.

Ask for DEKALB—insist on DEKALB.



"DEKALB" is a Registered Brand Name.
"XL" is a variety designation.



In your field,
or in your
home . . .
see how



Gehl outchops them all!

The Gehl Chop-All turns out fine chopping . . . forage as short as you want it for tight packing in silos, easy unloading, better feeding. Here's why:

Chrome-edged knives and tungsten-carbide cutter bar short-chop forage to 1/4-inch.

Select-A-Cut Transmission changes forage length in seconds (from short to medium or long) with the push of a lever.

Easy-Swing Drawbar —adjust hitch position from tractor seat, for offset or direct pull.

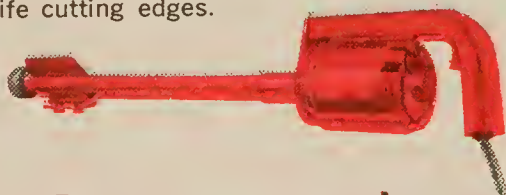
Narrow row (2-row) corn head; hay pick-up; mower bar attachment; 1-row and 2-row heads available . . . widest choice

of forage harvester attachments in the industry.

Ask your Gehl dealer to demonstrate the Chop-All in your field . . . or, see the full-color Gehl movie in your home (at night or during bad weather down-time).

For sure: see Gehl Chop-All performance . . . short-chopping and all . . . before you buy. *Financing available.*

NEW! LIGHTWEIGHT 10,000 RPM KNIFE SHARPENER, electric or gas models, for minute-per-knife sharpening on the machine — in the field or at the machine shed. Adjustable guide insures proper beveling of knife cutting edges.



Make us Prove it with a Demonstration!



**WHERE QUALITY IS
A FAMILY TRADITION**

30-66R1

GEHL BROS. MANUFACTURING CO.
Dept. FP-11-30, West Bend, Wisconsin

Please send more information on the Gehl Chop-All.

☐ Send information on knife sharpener.

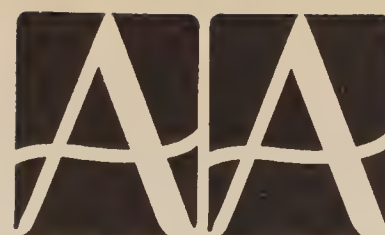
☐ I want to see the movie. ☐ I am a student.

Name _____

Route _____ City _____

State _____

Zip Code _____



FARM DOLLAR GUIDE

AVERAGE BLEND MILK PRICE for '66 in New England markets is estimated to be up 22 cents over '65. Formula for price support for dairy products will up support by from 5 to 20 cents per cwt. Surplus supplies of dairy products are fading. U. S. milk production in '65 was 1 percent below '64, but butter production was down 20 percent.

U. S. POTATO STOCKS on January 1 were 123,200,000 cwt., about 30 percent above January 1, 1965. Use of potatoes has been high, with an apparent increase in potatoes for processing. Maine potato stocks on same date 14 percent below last year, and Eastern states as a whole were somewhat below last year. As a result, prices have been better than some people anticipated, and improved steadily during January.

ON THE BASIS of equal amounts of plant food, a liquid complete fertilizer is equal or perhaps better than a solid fertilizer. Correct application is important, which usually means hiring it put on by a man doing custom work. This will usually be done before plowing, or during land fitting.

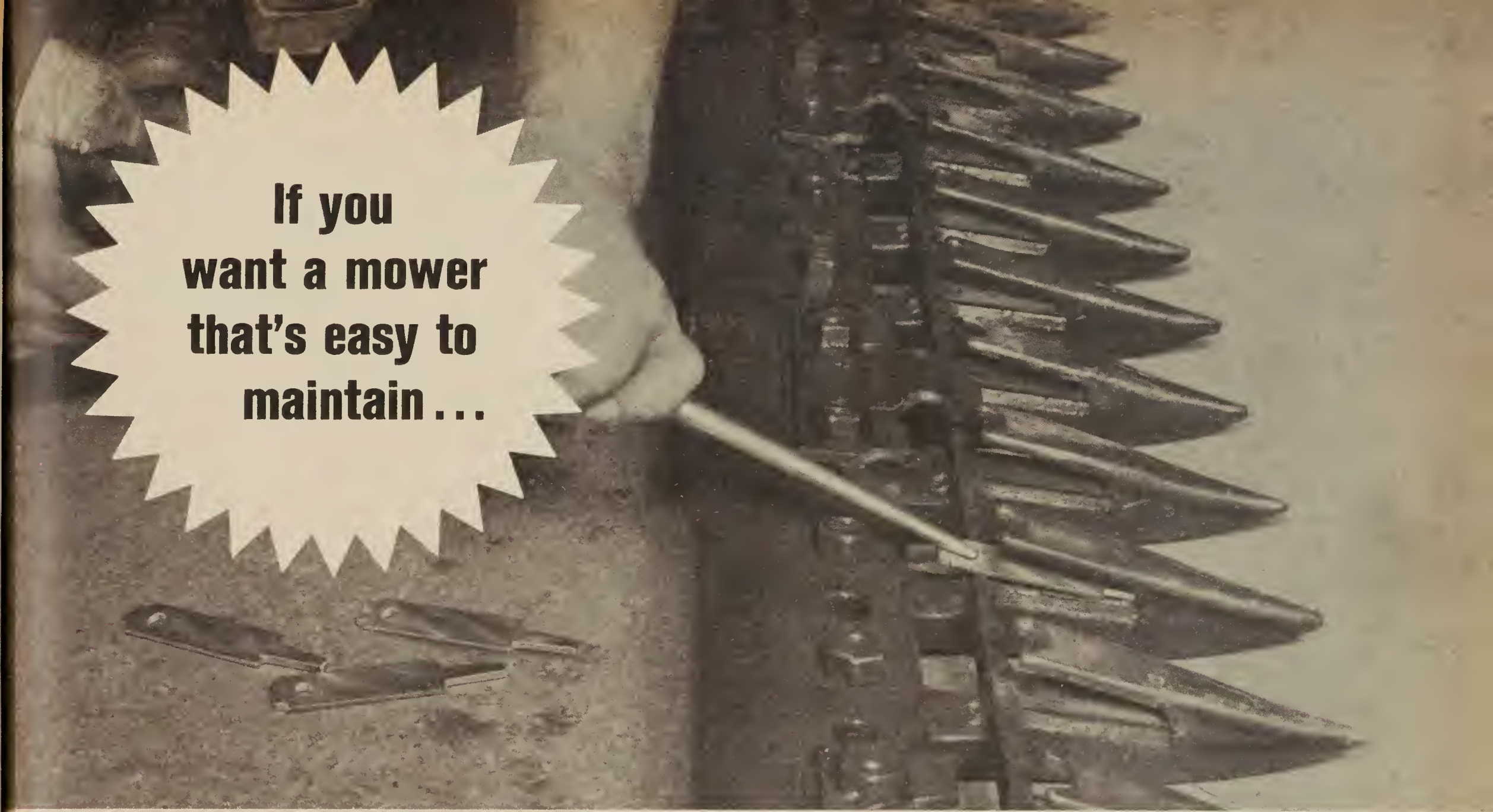
DIFFERENCES in milk production among dairy herds is due 90 percent to management and only 10 percent to inherited ability. Also, management can be improved much faster than inheritance. So says Frank Dickinson of University of Massachusetts.

CORNELL has developed "Orbit," a new oat variety. It is a short, high-yielding variety intended to reduce lodging when grown for grain. It is 6 inches shorter than Garry, and tests show that "Orbit" produces 3 to 5 more bushels per acre. A limited amount of seed is available.


RESEARCHERS are challenging hens! Will hens in windowless houses lay an egg every 18 hours if artificial lights give them an 18-hour day instead of a 24-hour one?

INCREASE July-August production through feeding. Watch your spring and summer fresheners. (1) High producers are frequently underfed; (2) underfeeding this spring and summer will hurt next fall; (3) high producers need more high energy feeds (grains); (4) cows on good pasture producing 65 pounds of 4 percent milk require approximately 22 pounds of grain.

Pastures decline in quality and quantity as the season progresses. (1) Supplemental feeding must be increased as this occurs; (2) the summer slump is due mainly to underfeeding; (3) use only good-quality feeds for maximum response; (4) full barn feeding is required on poor pasture . . . don't overestimate pastures.



**If you
want a mower
that's easy to
maintain...**



**get a new
John Deere 50
Side-Mounted
Mower**

Snap-in guard plates. That's one reason why the new John Deere 50 Side-Mounted Mower is easy to maintain. No riveting. What's more, cutter-bar lead and knife register are built in. There aren't any knife-head guides or wear plates to adjust or replace in the inner shoe. And, the mower has a quick-change knife.

You'll like the pitman-less, balanced drive on the new John Deere 50 Side-Mounted Mower, too. It's quiet and practically vibrationless. The mower's 1,800 strokes-per minute knife-speed gives you clean, shear cutting at fast travel speeds.

See your dealer soon for complete details on the new John Deere 50 Side-Mounted Mower and the convenient Credit Plan. There are three rear-hitched mowers in *The Long Green Line*, too.

JOHN DEERE

Moline, Illinois





TINGLEY

CAN HELP YOU CONTROL THE SPREAD OF ANIMAL DISEASES

Authorities warn that disease may be carried to your stock by friends' or visitors' footwear.

Editor Carroll Mitchell of National Hog Farmer wrote, "Don't permit any visitor, wearing his own chore overshoes to enter your lots, even if he is a good friend".

The University of Nebraska's eminent extension veterinarian, Dr. Crosby Howe, wrote us, "Your footwear combines good foot traction with a surface that is readily cleaned for disinfection. Too frequently we see people trying to disinfect surfaces that have not been thoroughly cleaned, thus causing a breakdown in disease prevention".

Molded in one piece of natural rubber or neoprene with no fabric lining, Tingley footwear is easily washed inside and out—dries immediately. Stretches on and off—each size fits 3 work shoe sizes. Lightweight, tough and rugged.

Keep a few pairs on hand for friends and visitors. Takes only a minute to disinfect them when guests have left.

At most shoe stores, department and farm stores.



10" Closure boots — \$5.99

Knee-Hi boots \$7.95

Hi-Top Work rubbers \$3.99

TINGLEY
RUBBER CORPORATION
222 SOUTH AVE., SO. PLAINFIELD, N.J.

NEW UEBLER MODEL 600 FEED TRUCK



• SELF-PROPELLED
• SELF-UNLOADING

Automates feeding of ensilage or green chop in the dairy barn. Fills directly from silo or farage wagon—distributes evenly, quickly, effortlessly, 35 bu. capacity!

Reversing 2-speed transmission—low speed for feeding, high speed for quick return to feed source. Windrows or makes separate piles. Short turning radius makes unit very maneuverable and easy to operate.

Write or phone for dealer's name or demonstration.

UEBLER MILKING MACHINE CO., INC.
Dept. A VERNON, N.Y. 13476 Phone: (315) 829-2305



The 10 most unwanted

by M. A. Parsons

RECENTLY the National Better Business Bureau, in co-operation with 114 local Bureaus throughout the country, undertook the first nation-wide survey of consumer schemes. They came up with a list of the ten schemes used most often to deceive and defraud the public. These are also schemes about which our Service Bureau receives many complaints from subscribers, but not necessarily in the same order of importance.

1 — BAIT AND SWITCH.

Bait advertising is the practice of offering at a spectacularly low price a brand-name product which the seller does not intend to sell if he can possibly avoid it. He runs an enticing advertisement which is the "bait," then he or his salesman attempts to change the customer's mind by deprecating the advertised item and "switching" his interest to other higher-priced, usually off-brand, merchandise.

This bait and switch technique has been used to sell sewing machines, vacuum cleaners, carpeting, storm windows, aluminum siding, and a host of other products, the latest of which is freezer meats.

2 — HOME IMPROVEMENT.

In this NBBB survey, home improvement was a close second on the racket list. Judging from complaints we receive from subscribers, this would generally lead our list. Each spring, when itinerant repairmen and fast-talking con men take to the road, we print a warning of the schemes to be wary of. These range from lightning protection, roof, chimney, and gutter repair, to waterproofing basements and blacktopping driveways.

Fortunately, most firms doing home improvement work are legitimate, reputable concerns, and they are happy to give you time to check on their reliability before doing business with them. The problem in this field is the unscrupulous gyp artist who tries to fast-talk the customer (often the elderly who live alone) into agreeing immediately on a job to be done.

His argument is that he can do the job for less since he happens to be in the neighborhood—but the paint he puts on your roof may wash off with the first rain! One woman signed up to pay \$5,800 in monthly installments for aluminum siding; a job which was later estimated at \$660 by a local contractor.

3 — CHAIN REFERRAL SELLING.

This plan has a "something for nothing" appeal and has most often been used to sell siding, vac-

uum cleaners and carpeting.

The salesman tells the customer that by furnishing him with names of a certain number of friends and neighbors she can earn the cost of whatever he is selling. His company will pay \$50 commission for each sale, thereby making the product free to her.

These commissions seldom if ever materialize, but meantime the customer has signed a legal contract, which has been turned over to a bank or finance company, and she is obligated to make regular payments. She ends up paying an inflated price for something she probably did not need and possibly cannot afford.

A new law, which became effective in New York State September 1, 1965, requires that all such agreements to compensate a buyer of the product must be reduced to writing in a single document, which would incorporate the details of the reimbursement as well as the details of any installment payment plan connected with the purchase, otherwise such agreements are void. The law also gives the buyer the right to deduct any "commissions" earned for referrals from the total purchase price.

4 — CHARITY RACKETS.

The National Better Business Bureau says that, in the name of charity, swindlers siphon off perhaps \$100 million a year intended for worthwhile causes. We receive a number of inquiries about various charities, but not many complaints against charity swindles; possibly because, unless one knows the percentage of the donation which the charity will receive, it is difficult to judge if one is being gypped.

This year promoters of an unordered Christmas merchandise sales racket attempted to victimize children, one of them as young as seven years old, according to New York State Attorney General Louis J. Lefkowitz. The father of a seven-year-old girl in the second grade was billed for \$15 for 12 boxes of Christmas greeting cards which had been mailed to her home last October. The child or her parents had never requested the cards.

There is absolutely no obligation to pay for unordered merchandise whether it be Christmas cards or any other article. All that is necessary is for the recipient to mark the outside of the unopened package "refused" and return it to the postman or post office. If this is not possible the merchandise should not be used.

5 — PHONY CREDIT CERTIFICATES.

These certificates are used to pro-

mote the sale of appliances and other products, and are awarded indiscriminately. Generally, the articles on which they are redeemable have been inflated to accommodate the amount of the credit check.

These certificates are awarded most often toward purchase of sewing machines and vacuum cleaners according to the experience of our readers. Sometimes the sewing machine is "free" but an overpriced cabinet must be purchased. Typical is this letter which a subscriber received from a sewing machine center:

"Your name was registered at the New York World's Fair sewing machine drawing and you will receive a new—sewing machine for the price of the cabinet only. You have a choice of two models. You may select at no cost to you either of the two models with the purchase of a cabinet at prices ranging from \$39.50 to slightly higher, depending on size, style and finish."

The chances are the machine is no bargain at \$39.50!

6 — BUSINESS OPPORTUNITIES.

These schemes involve the use of classified newspaper advertisements to create the illusion of large profits, little work and no risk, and usually concern franchising and vending machine promotions.

Vending is a full-time occupation requiring capital, knowledge and training, and any offer to get started in the business "part-time" is almost always suspect. The great majority of those who manufacture, sell and operate vending machines are legitimate business men, but there is a small number of dishonest promoters operating on the fringe of the industry.

These high-pressure salesmen are generally independent agents who buy vending machines from small manufacturers, and then resell them to inexperienced persons who hope to find an easy route to extra income. When these machines are purchased on the basis of fraudulent or deceptive promises by the salesmen, the odds against success of the venture are extremely high.

7 — DEBT CONSOLIDATION.

This fast-growing, money-lending racket practiced by unlicensed second mortgage brokers and others offers debt-ridden homeowners an "easy way out" of their financial troubles. Homeowners are promised they can reduce monthly payments 50 percent or more by consolidating their debts, but they soon find they must pay back up to twice the amount they borrowed!

8 — VICTIMIZING THE AGED.

This category includes most every consumer racket. Older people are natural targets for quacks and swindlers who prey on their loneliness, fears, infirmities, and financial desperation.

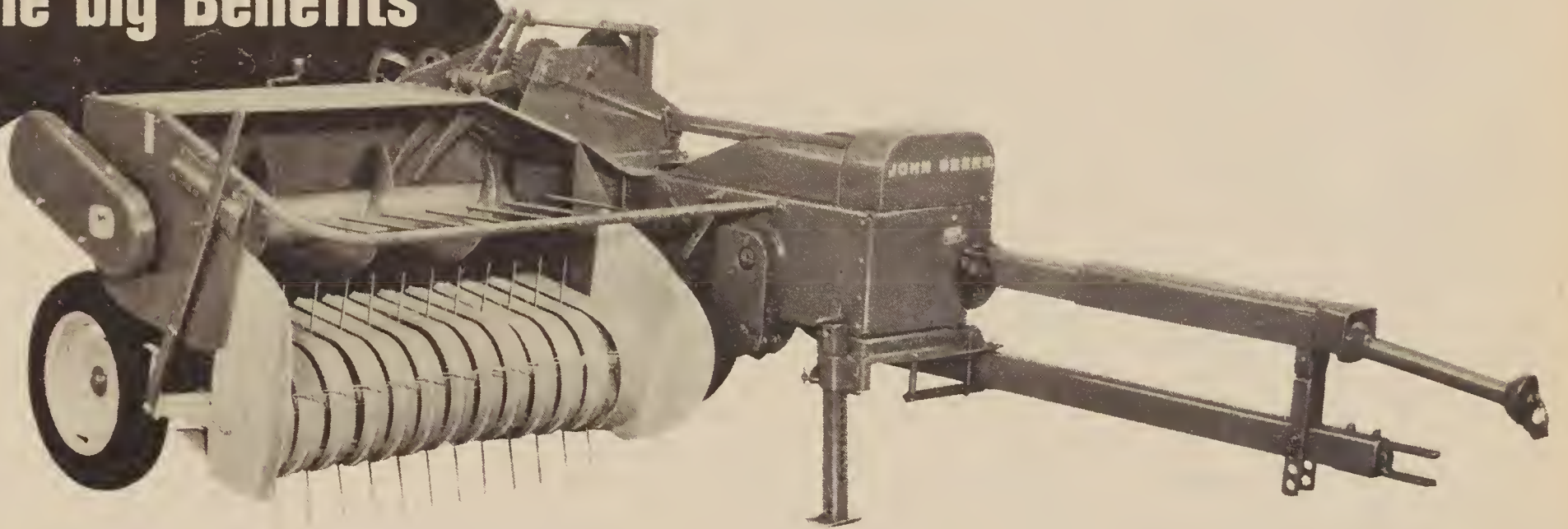
A few years ago we had an outstanding example of this when an elderly lady in a nearby town wrote us of her experience with a lightning rod gang. She paid \$461

(Continued on page 63)

American Agriculturist, March, 1966

... The
little things
you're missing
in
your baler...

...are in a
John Deere Baler—
right along
with
the big Benefits



With today's balers having so much in common, it's the little things that make the big difference. John Deere Balers are a better buy because they have these little things that count. For example . . .

The **bale measuring wheel** on a John Deere is nearly centered between the sides of the bale case. Center mounting makes the wheel do a more accurate job of keeping bales the same length. Note the length of the bale case on a John Deere. Its extra length keeps bales under compression longer, giving you denser, better-formed bales.

John Deere Balers have a long tongue. This gives you

better visibility of the pickup. Team up the long tongue with the offset pickup and you'll be able to make full use of pickup width . . . without running over the windrow.

Go **John Deere** and you'll get a baler with a heavy, large-diameter flywheel. Weight and the weight distribution give the flywheel more carry-through so the plungerhead can slice through tough spots with less power.

See your John Deere dealer soon and have him point out all the little features (and the big ones) in a John Deere Baler that make a big difference. The Credit Plan makes it easy to own a baler from *The Long Green Line*.

JOHN DEERE
Moline, Illinois





New Angle

for weed and grass control in corn...

A combination of LOROX™ linuron weed killer and Atrazine is the new angle for corn growers

Combinations are the answer to annual weed and grass problems that no single herbicide can solve alone. Many farmers used a combination of "Lorox" and Atrazine in 1965 and were highly pleased with the results. "Lorox" is recognized for its outstanding ability to control weeds and also for its favorable rate of disappearance from the soil. Atrazine is known for the manner in which it is tolerated by corn. This combination capitalizes on the strong points of each herbicide.

Another angle...non-pressure nitrogen solution may be substituted for all or part of the water when using the combination of "Lorox" and Atrazine. One trip through the field weeds 'n feeds your corn.

This year, use "Lorox" and Atrazine in combination. Mix them yourself or buy a ready-to-use formulation of the two—look for the bag containing linuron. Ask your dealer for more information about the combination of "Lorox" and Atrazine, or write: Du Pont, N-2539, Wilmington, Delaware 19898.

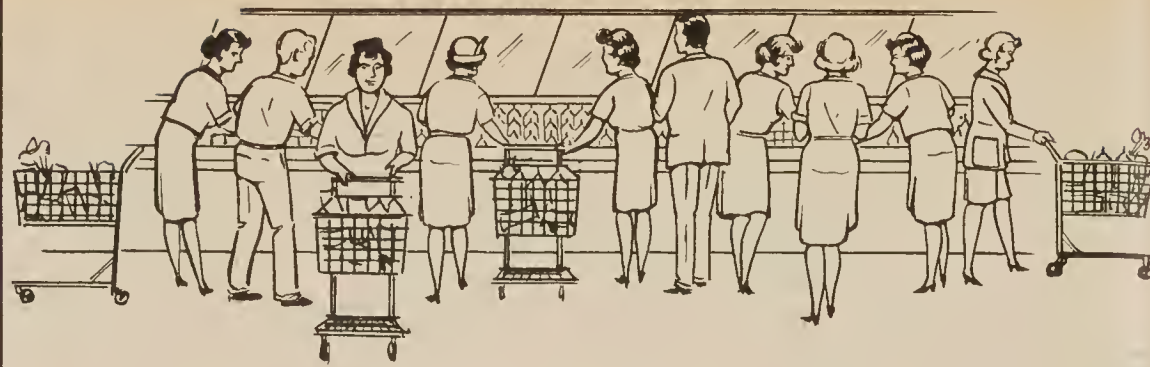
For your soybean acreage, "Lorox" used alone gives you the most weed and grass control for your money. "Lorox" effectively controls both annual weeds and grasses in soybeans, at low cost and without soil residue problems.

With any chemical, follow labeling instructions and warnings carefully.



Better Things for Better Living
...through Chemistry

MILK DAIRY PRODUCTS CREAM



RESEARCH ON SELLING MILK

HERE'S A quick summary of a two-year, six-market special milk market promotion test conducted by the American Dairy Association and the USDA:

In the 6 markets (Rochester, N. Y.; Clarksburg, W. Virginia; Chattanooga, Tenn.; Knoxville, Tenn.; Sioux Falls-Mitchell, So. Dakota; and Neosho Valley of Kansas and Missouri) the researchers tested two levels of fluid milk promotion above the two cents per person that was being spent in the markets by the American Dairy Association prior to the test. One level tested was 15 cents per person in the markets, on an annual basis, and the second level was 20 cents.

In each case, these sums were in addition to the two cents already being spent... the extra money being put in by ADA rather than raised from producers in these markets. On a per hundredweight-of-milk basis, the cost to producers at the 15 cents level would have been an additional 4 cents, while the 30 cents level would have cost an additional 8 cents per cwt. of milk.

Increased Sales

The plus 15 cents level of promotion produced increased sales of fluid milk at the rate of 4.5 percent. This meant that for each \$1 producers invested in this additional promotion, they earned a return of \$1.68. This gain in income is based on the higher price that producers received for the additional milk sold in Class I rather than at manufacturing prices. The plus 30 cents level of promotion produced a 5.9 percent jump in Class I sales, but the return on the investment was not as desirable... producers received \$1.19 in additional income for each additional \$1 invested in the milk promotion.

Better Image

The advertising campaign carried out under these higher levels of promotional spending achieved these impressive results because favorable attitudes toward milk gained in intensity during the periods of high promotion, while unfavorable attitudes became less influential. Among people 15 years of age and over, there was a gain of 12 percent in the percentage of people who became regular milk drinkers rather than occasional milk drinkers.

People, during the periods of intensive milk promotion, believed more strongly the statement that "Milk is a good value for the money," and they believed less strongly the statement "Milk is

fattening." Yet neither of these points was discussed in the advertising, all of which tends to support the idea that a positive promotion program on behalf of milk will sell more milk if the volume of the promotion is adequate.

Although this test was confined to fluid milk promotion, there is no reason to believe that the same principles which worked for fluid milk will not work for other dairy foods.

The results of the special milk market promotion test have been surprising to many people who have assumed that non-brand promotion for a well-known and frequently used product like milk would not pay off. Some people, including marketing people in major dairy processing and distribution companies, have begun to re-examine their ideas about the promotability of fluid milk.

Theories about inelasticity of demand, based largely on price theory, are being questioned too, because it may very well be that in a society in which more and more families each year are not restricted by their incomes to buying only necessities, price is not nearly as important as it once was. Many other things enter into buying decisions, and the changes in attitudes produced by the special milk market promotion in the 6 test markets indicate that people can be encouraged to consume more milk without cutting the price and by reminding them often enough of the promises milk offers to them.

CO-OP WINNERS

Top winners of awards in the National Council of Farmer Cooperatives' 20th annual Information Service Fair included some northeastern cooperatives. Five first places went to AGWAY, Inc., Syracuse, New York, and four were won by the Dairyman's League Cooperative Association, Inc., New York, N.Y. Winning two top awards was Ocean Spray Cranberries, Inc., Hanson, Massachusetts.

HORSE BARN PLANS

Plans are available for a riding horse barn, multiple-stall horse barn, small horse barn with individual stalls, and even a horse trailer. For information write to Extension Plan Service, Department of Agricultural Engineering, Riley-Robb Hall, Ithaca, New York 14850, or contact your Cooperative Extension Agent.

American Agriculturist, March, 1966



their herd is one of 12,169 on PFP

they're making \$561 per cow...

on an average of 16,986 lbs. of milk per cow per year

Charles and Linda Sherman, of Middletown, Rhode Island, are making this much money per cow by challenge feeding their herd according to Agway's Profit Feeding Plan. And they are doing it with a herd that, only two years ago, was already making \$514 income over

feed cost per cow per year.

Gains like this are not uncommon for the 12,169 dairy families managing their herds according to



PFP recommendations. You can do it, too.

Challenge your cows. See for yourself how much more money they can make for you. We know of only one way to do this: enroll in Agway's Profit Feeding Plan—now. Agway Inc.



DAIRY FEEDS & SERVICES



Apply anything—even chemicals with this GANDY precision

Apply

- fertilizer
- lime
- seeds
- granular chemicals

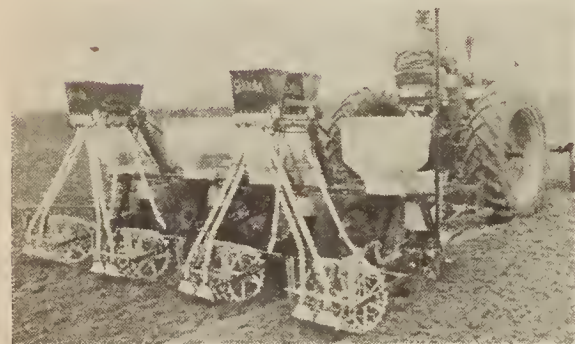
Take another look at this photo! Here's the only spreader made that broadcasts hundreds of pounds of fertilizer, or as little as 5 pounds of granular chemical per acre—*uniformly*. Every square inch gets same application.

It's 3 spreaders in one—fertilizer, chemical, seeds. Also use it with snap-on shields to sidedress or band row crops. Precision-apply insecticides and pre- or post-emergence herbicides.

"Best-built farm machine I ever owned," say users about 10 to 20-year-old Gandys. We build 'em even better today for extra years of service! Easiest to clean! Shur-feed rotor instantly removable. Hinged rate slide swings down for cleaning.

Check these features: Adjustable wheel spacing, longer tongue, reversible lids, twin lid locks!

Sized to fit your need—6 to 20-foot.



Control weeds and insects as you plant! Apply soil insecticide in 7-inch band, herbicide in 14-inch band with Gandy Row-crop Applicators. "Regular" model (shown) for mechanical-lift planters, "Juniors" for hydraulic-lift planters.



Band resistant-rootworm insecticides with Gandy 7-inch Ro-Banders®. Apply in 7-inch band over seed as recommended. If you have resistant rootworms, get Ro-Banders for Gandy applicators or other makes of granular attachments.



Get field-wide weed and insect control! Broadcast herbicides or insecticides pre-emergence or over growing crops with Gandy 3-point-hitch applicator. Apply as little as 5 lbs. chemical per acre! Ground drive. 10, 12, 14-foot.



Check your acreages in government programs *before you plant*, with Gandy Measuring Wheel. "Pays for itself every year," say users. Measure accurately as fast as you walk, measure contour strips easily, too. Automatic counter.



Owatonna, Minnesota
SINCE 1936... WORLD'S MOST ACCURATE APPLICATORS

Write **GANDY COMPANY, 15 Gandrud Road, Owatonna, Minnesota** for literature on spreaders, Ro-Banders, Ro-Wheels, Measuring Wheels, row-crop and broadcast applicators for all crops.

Doc Mettler Says:

HEAVES CAN BE TREATED

THE FIRST SPRING trail rides and horse shows are still far beyond the next March snowstorm, but already plans and dreams are being made about them by scores of horse owners tired of the long winter. More than one, however, will be greatly disappointed when the first hard ride this spring shows that his beloved "sound" mount of last fall coughs and blows like an old steam engine.

One doesn't have to be a veterinarian to recognize an advanced case of heaves in a horse, but until recently few had the courage to tell a friend (or themselves) that a horse had heaves. Heaves were considered incurable, and the heavy horse was doomed to uselessness.

I remember a client who would not speak to me for weeks because I suggested that the dry cough a newly-purchased, high-priced, barrel-racing mare had developed might be an early symptom of heaves. To buy a heavy horse was long the mark of one is easily duped; to sell one was either thought "crooked" or "sharp"... depending upon which side of the deal one was on.

Like Asthma

This spring many "green" horses that are brought in will pick up distemper or strangles. Most of them will be cured easily with antibiotics, but a few will be left with a chronic cough. By next fall, when they go on barn feed, some will develop real cases of heaves.

Heaves in the horse can be compared to asthma in the human; its cause is now thought to be an allergy. The earliest symptom is a dry cough; later the animal begins to "blow." The slightest exertion will cause him to breathe hard, using his abdominal muscles in a typical "lift" type of breathing. Since he swallows air with each breath, he will be "gassy," his abdomen will be enlarged, and will produce sounds like a colic. Soon a "heave line," running parallel to the ends of the ribs on each side, will show up on most horses.

Until recently treatment was useless. Horses were put on powders containing various drugs that helped only slightly. The hay was soaked with water or lime water, and other aids such as wetting down all dusty stable areas were employed. Still most heavy horses got worse each year.

Horsemen have recognized for years that when a heavy horse was turned out to good pasture and absolutely no hay was fed he might, after many weeks, nearly recover.

A few years ago two important things happened to help the horse with heaves: antihistamines were discovered, and a feed formula now sold as "New Hope" was developed.

Antihistamines can now be pur-

chased from your veterinarian in a form that can be given by mouth. A horse in early heaves, or one recovering from a respiratory disease that might lead to heaves, can often be helped by feeding antihistamines and being put on clean pasture. If hay and grain must be fed, they should be as dust-free as possible.

New Hope... a complete feed, not a grain substitute... can be purchased from your Wirthmore dealer. My own experience has been that horses rendered useless by heaves can often be brought to a point of recovery with this product so they can be used as of old.

If you are to get results, however, remember that even a few mouthfuls of hay, no matter how clean and dust-free, can defeat the whole treatment. The horse should be kept in a dust-free place, on bedding of shavings, clean sawdust, or some other non-hay type product.

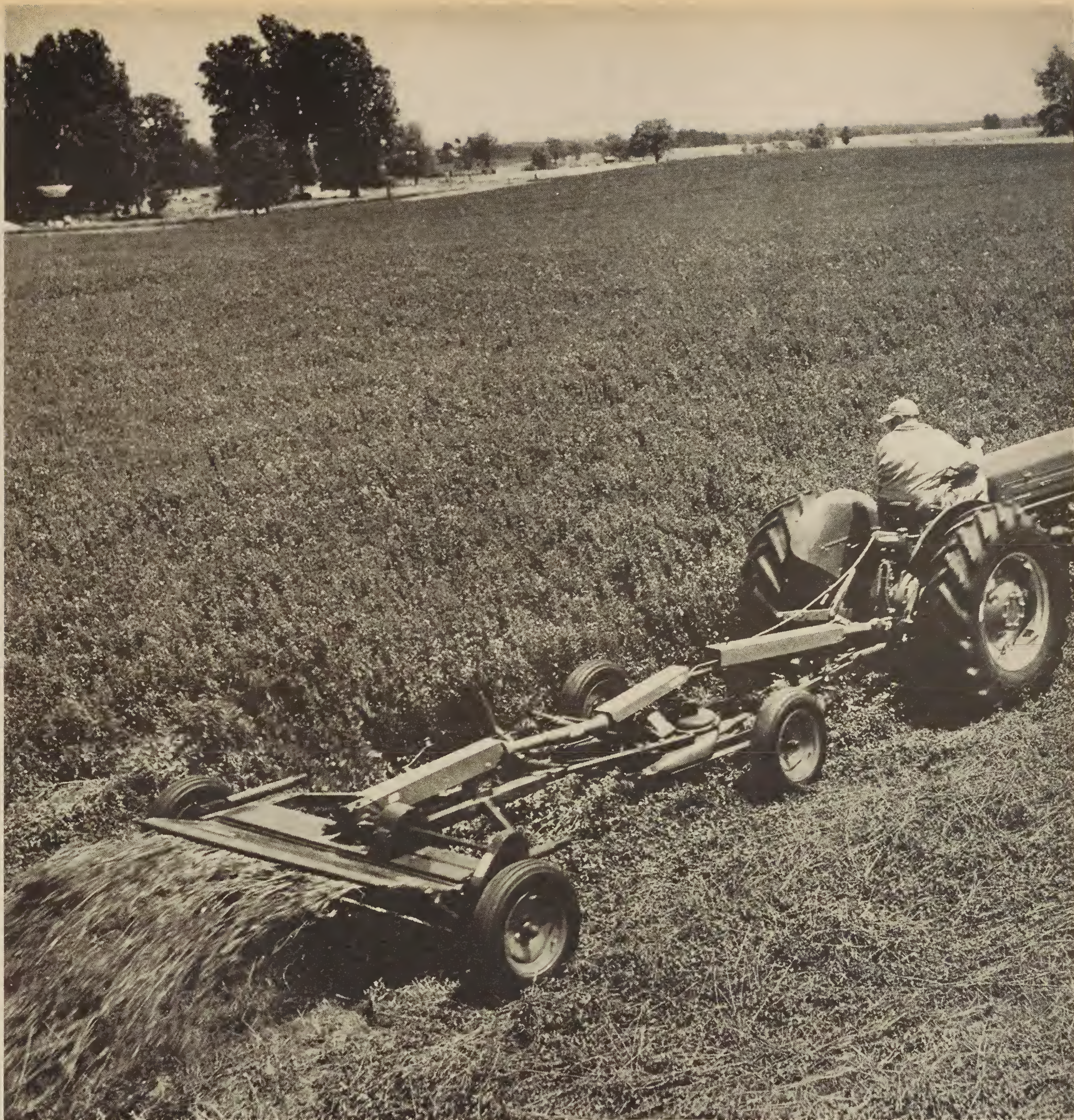
Before you invest a lot of money in heave treatments, consult your veterinarian to be sure of the diagnosis. One complaint about horses on hay-excluding diets is that they "chew the barn down." For some reason, a worm-free horse is less apt to chew wood, trees, etc. Have your veterinarian check a stool on your horse. (This should be done two or three times a year anyway). If it is worm-infested, have him treated.

There are other types of so-called hayless diets that are pellets containing some alfalfa... in fact, most every major feed company has one or more special preparations for horses. Some heavy horses can get along on these, and they are cheaper than New Hope. Perhaps the best way to feed them is to start out with New Hope or antihistamines till the horse appears normal, then gradually go over to the cheaper pelleted feed. If the heave symptoms reoccur, go back to the original program.

As with all diseases, prevention should be placed ahead of treatment. Be careful of your hay supply, see to it that it is as clean and dust-free and mold-free as possible. Don't ever use moldy hay or straw for bedding. When you buy a horse, study him carefully for signs of heaves. Every cough a horse makes is not the beginning of heaves, but when in doubt consult your veterinarian.



American Agriculturist, March, 1966



You can mow alfalfa seven days after spraying Alfa-tox and have no residue in milk.

You needn't delay cutting your hay for weeks because you've sprayed an insecticide to control alfalfa weevil. You can spray Alfa-tox® and all you have to wait is just seven days before cutting your alfalfa for hay or green chop. Then you're sure of no insecticide residue in milk.

Alfa-tox is a combination of two proved insecticides . . . Diazinon® and methoxychlor. So you're doubly-sure of effective control of alfalfa weevil, even of strains which have developed resistance to some other insecticides.

And Alfa-tox controls practically all other insects known to attack alfalfa, including aphids, mites, leafhoppers, flea beetles and grasshoppers. That's why Alfa-tox has the reputation of being the closest thing yet to a "perfect" forage insecticide.

The time to spray Alfa-tox for effective weevil control is when you begin to note evidence of damage. Check alfalfa bud tips

frequently and spray by the time 30-50 per cent of the bud tips show signs of larvae feeding. You'll get effective control of larvae already hatched as well as larvae which hatch following application.

Spraying with Alfa-tox assures control of alfalfa weevil larvae for two or three



You can spray Alfa-tox for control of alfalfa weevil and mow, or graze your cows, only seven days after application.

weeks. That's usually enough time to protect your alfalfa until you harvest your first cutting. If repeat applications should be necessary, you can spray Alfa-tox up to seven days before cutting or grazing.

That's one of the big advantages of Alfa-tox. You can spray Alfa-tox. Be sure of effective control of alfalfa weevil and other forage insects. And yet all you have to do is wait only seven days after application.

Then you can cut for hay or green chop, even graze your cows. You can be absolutely sure that no residue will be in milk.

Ask your nearby supplier for Alfa-tox or if you'd like more information, write us.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

Geigy
CREATORS OF CHEMICALS FOR MODERN AGRICULTURE
Alfa-tox



Class 1 Base Plans



by Leland Spencer, Professor Emeritus, Cornell University

IT IS now possible to provide in a federal milk order for long-term producer bases and for allocating the proceeds of fluid sales in accordance with such bases. This long-sought privilege became a reality through new legislation enacted by the 89th Congress near the close of its recent session.

In presenting the Conference Report on this legislation to the Senate, Mr. Ellender explained its purpose as follows:

"The dairy title would enable producers in the Federal milk marketing order areas to tailor their production to the amount needed for fluid milk consumption. Milk for this use commands a higher price. At present, this higher price and the lower price for milk used for other purposes such as butter, ice cream and nonfat dry milk, are blended together and the producer gets a price reflecting both uses. Under the base plan, he would be able to supply his share of the fluid market and get the higher price on what he produced. This would enable him to discontinue producing for the lower price if he wished. To the extent that producers in the higher-cost fluid areas would utilize this provision, government surplus purchasing would be reduced."

Procedure

The new authorization for Class I bases is permissive, not mandatory. Such base plans can be put into effect only through the adoption of suitable amendments to the various orders. Once a base plan amendment has been adopted, however, it applies to all producers in the market.

The milk producer cooperatives that desire such amendments will have the responsibility of formulating the detailed provisions, supporting them with effective evidence at public hearings, and mobilizing producer support for their approval in referendums after the hearings. Milk dealers and other interested groups also will have an opportunity to present their views, especially at the required public hearings.

The Secretary of Agriculture and the Department will have the important duty of deciding whether the base plan provisions developed and proposed by cooperatives and others are acceptable from the viewpoint of administration and of the public interest.

Individual Vote

Incidentally, the law requires that producers be allowed to vote individually on base plan amendments. Voting by cooperatives on behalf of their members will not be allowed in this instance as it is in voting on other amendments to federal orders. It is provided that if the producers who vote fail to approve such an amendment by the required two-thirds favorable margin the validity and continued functioning of other provisions of the order will not be affected.

For various reasons, some cooperatives are less interested than others in having Class I base plans adopted. Cooperatives

and dealers that have investments in facilities for processing and marketing surplus milk may be concerned about the loss of volume in those facilities which might follow the adoption of a Class I base plan. Dealers also may be apprehensive about the increased bargaining power that is likely to be conferred upon cooperatives by the anticipated reduction of surpluses.

Considerable time may be required at the outset to develop a pattern of policies and regulations pertaining to the administration of Class I base plans. Moreover, there will be hesitation on the part of some cooperatives and others about getting involved in the unpredictable difficulties associated with any new program of such far-reaching implications. Thus it will not be surprising if the adoption of Class I base plans proceeds rather slowly during the next year or two.

Broad Authority

Title I of the Food and Agriculture Act of 1965 is notable for its broad grant of authority and for its lack of detailed provisions. This has the advantage of permitting the development of base plan provisions best suited to the conditions and ideas that prevail in the various markets.

On the other hand, it places upon the Secretary a great deal of responsibility for determining the form and content of the new regulations. It may also result in a considerable amount of litigation to obtain court interpretations as to the intent of Congress, as well as to answer questions of constitutionality.

A question has been raised as to whether a Class I base plan can be justified for a market whose milk supply is in good balance with its fluid sales. This question apparently springs from the fact that a major purpose of the legislation, as indicated by statements of congressmen and senators during debate, is to reduce surpluses in the federal order markets.

There is a tendency to assume, erroneously, that a market whose milk supply exceeds fluid sales by less than 25 percent (or some other arbitrary figure) has no surplus problem. Actually, the normal or optimum reserve supply varies from market to market. It ranges from 35 percent or more for large markets situated in regions whose milk production costs are especially low, to 10 percent or less in some high-cost production areas.

As an example of the latter situation, consider the Sunshine State. For the year 1964, 87 percent of the milk received from producers by handlers in the Southeastern Florida market was disposed of in Class I, yet the Class I price was reduced an average of 29.4 cents per 100 pounds by supply-demand adjustments provided for in the order. Moreover, it may be as important to prevent the development of unnecessary surpluses (and more feasible to do so) as it is to reduce such excess supplies after they develop.

A major question that is sure to arise is: "How far did Congress intend to go in granting to the base-holding producers associated with a market a monopoly of the Class I or fluid sales in that market?" On the face of it, this new law authorizes a much more restrictive policy toward the entry of new producers and of outside milk than was considered permissible heretofore, especially since the Supreme Court decision of 1962 in the *Lehigh Valley* case.

It seems significant that in the final showdown, Congress adopted the more restrictive language of the House bill in preference to the Senate-approved Proxmire Amendment that would have assured quite liberal treatment of new producers. The new law does require that any increase in Class I base resulting from increased consumption, and any producer Class I bases forfeited, be first made available to new producers and to the alleviation of hardships and inequities among producers. Beyond this, though, the new law makes no provision for the entry of new producers.

It is clear from statements that were made in both the House and the Senate that this was not an oversight. In answer to a question during consideration of the Conference Report on this bill by the House of Representatives, Mr. Hagen, House manager for the bill, stated that any dairy farmer who had not delivered milk under the particular order during the base period could get a quota "only through an allocation of an increase in



Conclusions

Class I base plans appear to hold promise of significant income benefits to base-holding producers. These benefits are likely to come through more economical production, and also from modest price advances in many markets, as milk supplies are brought into closer adjustment to fluid requirements. Gradual curtailment of surplus production in markets where such base plans are used will tend to strengthen the



Class I sales, allocation of bases forfeited, or by transfer from producers who have quotas in that area."

Outside Milk

What about milk that is received by a regulated handler from an outside plant... if a Class I base plan is in effect will such milk be allowed to participate in the proceeds of fluid sales in that market? Most federal order markets receive milk at times, or perhaps regularly, from non-pool plants. In some instances such receipts may be greatly needed to meet fluid sales requirements, either seasonally or throughout the year. If this milk were not permitted to share in the proceeds of fluid sales, serious problems would arise.

On the other hand, more protection from the dumping of under-priced outside milk

Based on a lifetime of market research and study, the author analyzes base plan legislation. The publication will run other articles in future issues on this vitally-important proposal.



than has been allowed under recent policy of the Department should be accorded to producers who serve a federal order market regularly. The new Act appears to authorize the allocation of all fluid sales in a market to base-holding producers. Statements made in the House and Senate during debate support this interpretation.

However, spokesmen for the Department of Agriculture have indicated their belief that wide latitude exists for writing order provisions, as justified by evidence presented at hearings, that will give needed protection to local producers without unreasonable restraint of intermarket shipments. In the opinion of some competent analysts, this new legislation authorizes an exception to an older provision of the Agricultural Marketing Agreement Act which prohibits any limitation by a federal milk order on the movement of milk from any production area into any market.

Sale of Bases

The Secretary of Agriculture is given specific responsibility under the Act for determining whether transfers of producer bases "will be in the best interest of the public, existing producers, and prospective new producers." This is one of the most important policy decisions the Secretary will be called upon to make with respect to the administration of Class I base plans.

It is greatly to be hoped that the Secretary will not impose any unnecessary restrictions



bargaining power of cooperative associations and may enable more of them to negotiate prices higher than the minimum order prices.

By eliminating subsidized production of surplus milk, Class I base plans can contribute toward more efficient allocation of resources to milk production and other purposes, provided production in high-cost areas is not over-protected by unduly restrictive barriers to entry of new producers and outside milk.



upon transfers of base among bonafide producers. Failure to authorize relatively easy transfers of base would tend to obstruct and delay further changes toward more efficient organization of dairy farms and more economical production of milk.

Concern has been expressed in some quarters over the prospect that transferable bases may become an asset of substantial value. It is said that such asset values would constitute a windfall to present producers and impose an added burden of investment upon young dairy farmers getting started in the business. It is said also that the necessary investment in Class I bases would become a new element of cost, tending ultimately to raise the price of milk to consumers.

No doubt there is an element of truth in some of these assumptions. Any program that promises to give present producers a

priority of the proceeds of fluid sales in a market over a considerable period of time will cause the anticipated income gains to be capitalized in some form. If the bases, quotas or shipping rights can be readily bought and sold, they will become an asset of recognized commercial value. If such rights can be transferred only with the farms to which they were assigned originally, those farms will sell for higher prices than other farms of similar quality and location.

A corollary proposition is that when the bases assigned to producers are readily transferable, some part of the previous market value of the farms will be transferred to the value of bases. Thus, by no means all of the commercial value that may attach to transferable bases will constitute an increase in the producers' total assets. At least part of the base value will be offset by a corresponding decrease in the market value of dairy farms exclusive of bases. Another point worth noting is that transferable bases will come to be recognized as an asset acceptable as a basis for loans.

Experience in markets that have had co-operatively administered Class I base plans with transferable bases shows that such bases tend to encourage the retirement of marginal producers and the consolidation of farms into larger, more efficient operating units. This tends to reduce, rather than to increase production costs.

The value of transferable bases, or the extra value of farms to which the Class I bases are tied, will depend mainly upon: (1) the spread between the base price and the excess price; (2) the profitability of producing base milk; (3) the possibility of earning more base or a new base; and (4) the length of time during which the benefits to be obtained from the base allotments are expected to continue.

Distance Factor

The spread between the base price and the excess price will tend to increase with the distance of the market from the low-price center in the North Central states. Thus, it will tend to be greater in markets of the Northeast and South than in those of the North Central states. In a particular market the price spread will depend upon whether a reserve allowance as well as all fluid product sales are reflected in the Class I bases, upon how generous or how conservative the Department's policy in pricing Class I milk turns out to be, and upon the amount of any negotiated premium.

The profitability of producing base milk also will depend upon the level of Class I prices and upon whether the Class I bases include a reserve supply as well as all fluid product sales.

Obviously, if opportunity is given under a Class I base plan for new producers to earn bases over time, or for all producers to earn additional base through increased deliveries, such privileges will have a limiting effect

upon the market value of bases. By the same token, of course, such base plans would be less effective in limiting milk supplies to market needs. Uncertainty about extension of the specified termination date of the enabling legislation beyond December 31, 1969 will tend to limit the market value of bases until a decision on that issue becomes clear.

Assumption

The assumption that capitalization of transferable bases will involve an additional cost of producing milk, and thereby tend to necessitate higher Class I prices, appears to be unfounded. Base values will reflect anticipated gains in net income. To the extent that there is any relationship between base values and Class I prices, the base values will be a result rather than a cause. The use of Class I base plans may tend to result in higher prices in some instances by effecting a closer balance between milk supplies and fluid sales. But this may occur whether or not unrestricted transfers of base are permitted.

The writer believes the public interest will be served best by allowing unrestricted transfers of base among bona fide producers, together with the adoption of other base plan provisions (and a policy in pricing Class I milk) that will tend to result in a moderate valuation of the bases.

Prices and Incomes

Many producers and cooperative leaders have looked forward to the adoption of Class I base plans as a means of obtaining larger incomes through higher Class I prices. It is unlikely, however, that these hopes will be fully realized. The Director of the Dairy Division of the USDA is reported to have stated at a recent meeting that a federal order pool would still have the same amount of money in it with or without a base plan. He went on to say that no Class I price increase is intended.

Statements also were made in both the House and the Senate during debate on this legislation that it would not increase the cost of milk to consumers. Notwithstanding these statements, many producers and producer leaders will continue to expect and to work for price improvement as well as other benefits through the adoption of Class I base plans.

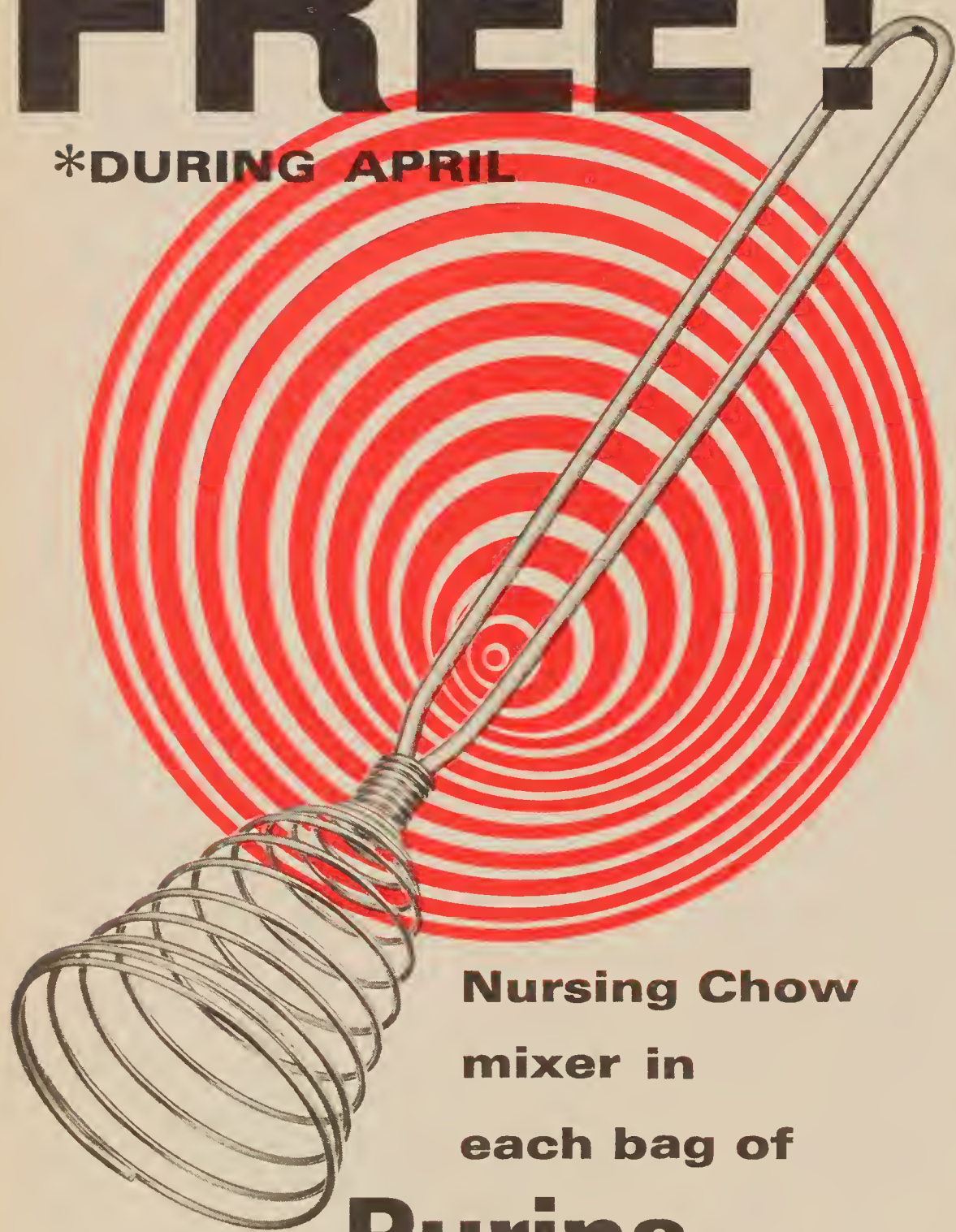
There has been no change in the Agricultural Marketing Agreement Act with respect to the criteria specified for pricing milk under federal orders. As interpreted by the Department, the over-riding directive is to establish prices under the orders that will assure "a sufficient supply of pure and wholesome milk," under conditions of open competition.

With Class I base plans in effect, conditions of open competition will not exist, and it may become difficult to determine or estimate the price that would be appropriate if supplies were not restricted. This would be especially true if a Class I base plan should become effective in the Chicago market . . . a market

(Continued on page 34)

FREE!

***DURING APRIL**



**Nursing Chow
mixer in**

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Purina Nursing Chow

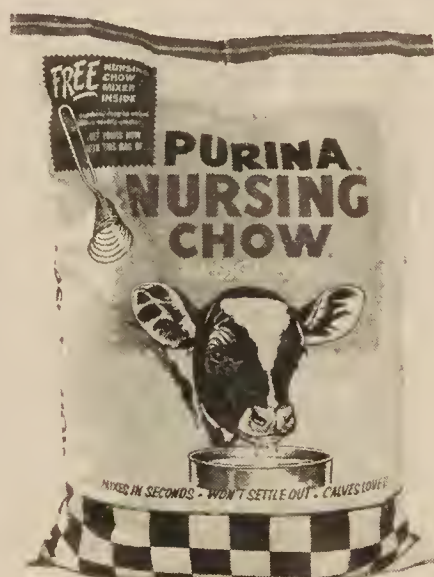
Here's a special "bonus" offer when you buy Purina Nursing Chow during April . . . a handy, stainless chromium plated Nursing Chow mixer in each 25- or 50-pound bag.

You'll like Nursing Chow because:

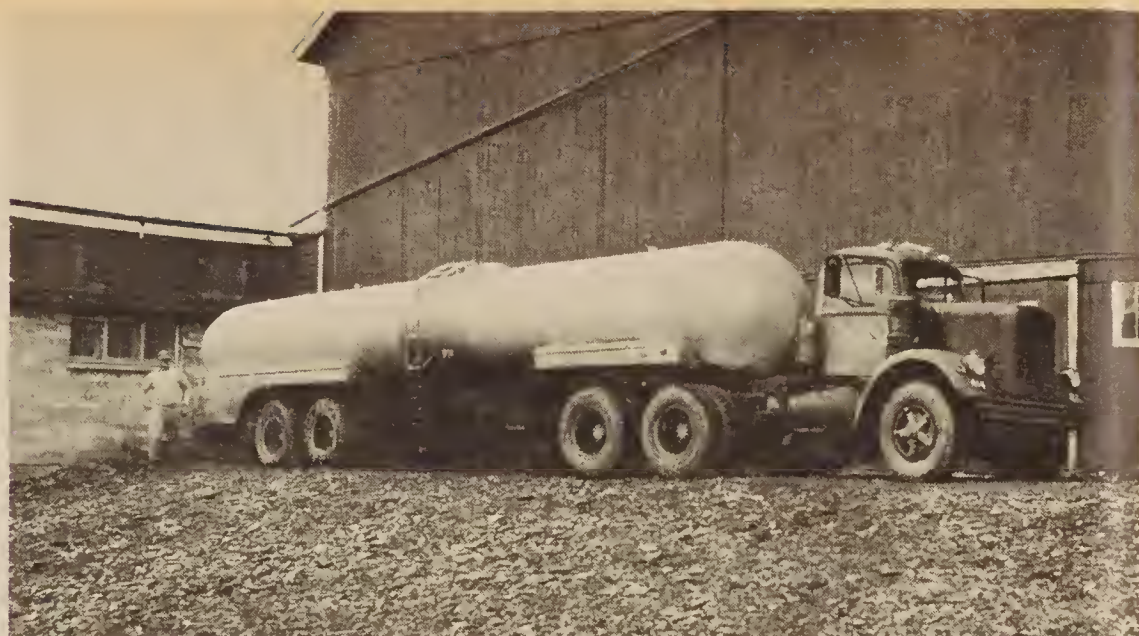
- It's a milk-base milk replacer that mixes fast and thoroughly in warm water.
- It's economical . . . 25 pounds replaces 225 pounds of whole milk that you can sell.
- It's improved—with an energy-protein balance that in tests has grown month-old calves 6 pounds heavier than those fed other milk replacers.
- Nursing Chow contains a powerful antibiotic, too, to guard your calves against scours.

Let Purina Nursing Chow help you start your spring calves fast. Get Nursing Chow—and your free mixer—from your Purina dealer at the sign of the familiar red and white Checkerboard.

**While they last!*



**PURINA
CHOWS**



The Scoville farm puts almost a million pounds of milk a year into huge pick-up tankers like this one with a capacity of 5,470 gallons.

A GRATE PROGRAM!

by Gordon Conklin

DAIRYMAN Parker Scoville, Goshen, New York, has been using for two years an unusual system of grating over the gutters in his dairy barn. As with most herds, his 62 Holstein milkers include some especially big cows that are a bit long-gearred for the length of platforms.

"The grating helps keep all the cows clean . . . partly by keeping their tails out of the gutter . . . and gives the big ones more room," Parker comments. "Besides, we find it easier to milk when we don't have to step across gutters. If I were planning a future stanchion barn, I think I'd keep platforms on the short side and use gratings."

Home Made

The gratings were made up at the Scoville farm shop in seven-foot sections of one-half inch smooth rods welded to angle irons. Total cash costs of the 220 feet of gratings . . . \$150 for material, \$50 to hire it cut up, \$20 for welding rods.

An emory wheel (masonry saw) was used to cut out a channel along the edges of gutters so the gratings would fit snugly and be level with platform and alleyway concrete. Rods are perpendicular to the gutter, two to three inches apart . . . although Parker says he would put them 1½ inches apart if he were doing it again.

"It takes a week or two for heifers to get used to the gratings," Parker reports, "but after that they don't step on them. There have been a few times when cows got their hooves wedged into them and picked them up with their feet, but it hasn't been a major problem."

Powered Sweeper

Cleanliness is an important consideration to Parker. Besides the contribution made by the gratings, he also has electric cow trainers . . . and a commercial sweeper, powered by a small tractor. "I sweep the barn when the cows are turned out," he comments, "including the platforms . . . entirely covered by rubber mats . . . as well as the mangers and alleyways." The gratings are difficult to sweep by hand, but the power sweeper takes 'em in stride. It now takes about five minutes a day to make everything shipshape in the sweeping department.

The rubber mats are bedded with a little sawdust. Parker comments that \$40 worth of sawdust a year is all that is required . . . versus the \$300 to \$400 he used to pay for straw. He especially likes the fact that cows don't slip when getting up and down on mats. He has no maternity pen, keeping the barn chock-full of milkers . . . and reports that the gratings serve well at calving, too.

Parker has no young cattle; a farmer at nearby Washingtonville purchases his calves and then sells them back to him as bred heifers. Some of these replacements came as calves from the Scoville farm; some did not. This arrangement has worked out well for the Scovilles, who want to use facilities to the maximum for milk production . . . and for the neighbor who wants to use skills and facilities, but not in milk production.

The Scovilles produced 950,000 pounds of milk last year with no hired help. Son David, a student at the Cornell Veterinary College, is home during the summer, and 16-year-old son George also adds to the work force when not involved in his high school program.

To produce this much milk with a labor force of that size, a high degree of farmstead mechanization is obviously required. Around-the-barn pipeline, a 35-bushel powered silage cart, and a gutter cleaner all increase a hundredfold the muscle power available.

Manure without straw bedding, by the way, tends to be too sloppy to elevate, at the inclined end of the gutter cleaner. Parker, faced with the prospect of a \$2,500 cost for remodeling so the gutter cleaner could discharge horizontally, decided instead to spend \$500 for a high-capacity diaphragm pump that boosts manure into the spreader. He's planning on buying a tank spreader designed for liquid manure.

He's also looking ahead to having 62 cows . . . all milking . . . in the main barn, and keeping enough dry stock in a pole loose-housing barn to maintain that number milking. If he continues his present herd average of 16,000 pounds per cow, that size total herd would enable him to reach . . . or surpass . . . the million pounds per year "sound barrier."

American Agriculturist, March, 1966

Aren't there a lot of things you'd rather do than cultivate corn?

Like using your time to take better care of your dairy cows and other livestock . . . or to get your first cutting of hay in on time ...or to do other important farm jobs which are more necessary than riding a cultivator.

All it takes is one broadcast spray of Atrazine herbicide and you've just about done away with the need to cultivate your corn. That's because Atrazine gives you effective, dependable control of most annual broadleaf weeds and grasses . . . from planting right through to harvest. So most seasons you shouldn't have to cultivate at all.

In fact, you can reduce your labor needs even more by spraying Atrazine in combination with nitrogen solution. One trip over the field does two jobs . . . weeds and feeds your corn. Efficiency like that is hard to beat.

You can apply the combination spray of Atrazine and nitrogen solution while planting, after planting, or until corn is in

the spike stage as a broadcast application.

After the spike stage, the combination spray should be directed to the base of the corn plant. That's because, although Atrazine is perfectly safe to corn at any stage of growth, nitrogen solution may burn corn if it comes in direct contact with the leaves.

Be sure to use Atrazine at the rate recommended on the Atrazine label for your type of soil. Then, after moisture has moved Atrazine into the weed root zone, you'll be sure of season-long control of most annual broadleaf weeds and grasses. Control which ends weed competition for moisture and soil nutrients.

Contact your local supplier or custom sprayer now for Atrazine and this season do all the things you'd rather do than cultivate corn.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.



One spray of Atrazine will give season-long control of weeds and grasses in your corn.

LIVESTOCK



Charolais — A full color movie, "The Charolais Report," is now available for showing before organizations and youth groups. The film may be obtained, without cost, by writing the American-International Charolais Association, 923 Lincoln Liberty Life Building, Houston, Texas 77002.

Control Breeding — A product known as Syncro-Mate has been found to control the breeding cycle of domestic farm animals. Research done at the University of

Sydney, Australia, proved that application is simple, with only two handlings of the animals. It is expected that it will be several months before the material is ready for the market.

Self-Service Hogs — Carl Van Gilst, research agricultural engineer at Fort Atkinson, Wisconsin, and Robert M. Peart, associate professor of agricultural engineering at Purdue University, Lafayette, Indiana, have come up with a new idea in feeding fattening hogs. They designed a feeding nozzle which delivers a measured amount of slurry each time the hog bites on the nozzle . . . which hogs very quickly learn to do. By this method they consume 1½

times as much feed. One nozzle could handle five or six hogs, and operating and equipment cost would be quite low.

Although the nozzle has been tried only on fattening hogs, it is felt it could probably also be used for small pigs.

New Vaccine — Veterinarians at Oklahoma State University, Stillwater, have developed a vaccine for cattle that will reduce the severe illness and death resulting from anaplasmosis without causing infection itself. This is the first time an anaplasmosis vaccine has been made commercially available in the United States; previously, control has depended largely on antibiotics and elimination of biting

insects that transmit the disease.

Sheepman, U.S.A. — This is the title of a movie that has already been shown many times in schools and before various groups, and that is available for future bookings. For information, write to Wool and Lamb Promotion News, American Sheep Producers Council, 909 17th Street, Suite 520, Denver 2, Colorado.

Agricultural Research — Experiments at Beltsville, Maryland, with bull yearlings and their twin steers have proved that the beef from well-grown yearling bulls is of fine quality, and the bulls have been outstanding in growth and economy of production.

In closely-controlled feedlot trials, the weanling bulls grew much faster and more efficiently than did their twins raised as steers, although the carcasses rated a little lower in tenderness and tastiness. It took the steers two extra months to reach the slaughter weight of 900 pounds. The bulls were particularly efficient in putting on lean beef.

Synchronized Hog Breeding? — MATCH, a synthetic drug developed in England, brought 132 gilts and sows into heat simultaneously in tests at Beltsville, Maryland. The pigs were artificially bred, and those continued in the tests through farrowing all gave birth within a three-day period. The sows averaged 8 pigs per litter after a normal gestation period . . . about the same as control animals . . . and no apparent ill effects have been observed.

The compound is now being examined by the Food and Drug Administration before clearance for commercial use.

Horse Population — The horse population in New York State has increased from 47,000 to 125,000 in the last five years, according to a recent survey. Many of them are pets owned by people who have no previous experience in caring for large animals, and to help them Dr. N. Bruce Haynes, Extension veterinarian at the New York State Veterinary College at Cornell, has prepared a bulletin. It is entitled "Horse Health Hints," No. 1153, and can be obtained from your county Extension Service or by writing Box 5, Roberts Hall, Ithaca, N.Y. 14850.

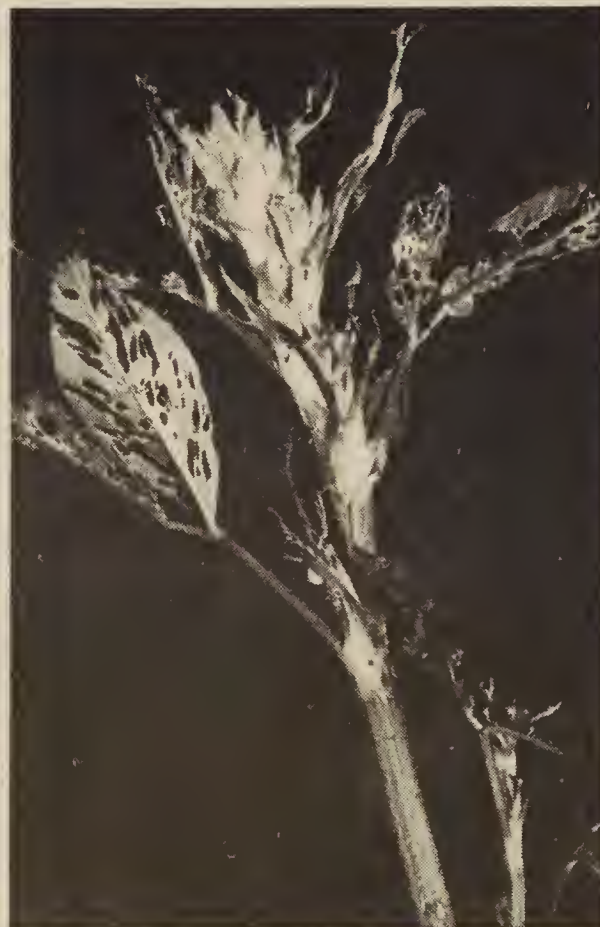
New Swine Drug — A new drug to control internal parasites, Dichlorvos, may be worth millions of dollars annually to swine producers. Its effect on large roundworms, nodular worms, and whipworms has been thoroughly proved at North Carolina State University's veterinary section, and there is hope that it may also control the parasite that causes scours in baby pigs.

The drug will be available to farmers only through licensed veterinarians.

American Agriculturist, March, 1966

Alfalfa Weevil

spittlebug and leafhopper, too



Tiny grubs—big appetites. Note green larvae with white stripes; also adult weevil and its damage to alfalfa.

* This proven one controls them all—safely!

(without the fear of residues in milk)

*AGWAY Alfalfa Spray 22E is the one dairymen relied on last year. It's a convenient, ready-to-use liquid formulation of Du Pont methoxychlor plus malathion highly recommended in the Northeast for weevil and other pests. Again this year, "play it safe/spray it safe". Ask your AGWAY man for 22E.



News and Views from NEW YORK

Dairy Princess — Peggy Bockmier, Allegany, New York, a Cornell University senior, has assumed the duties of New York State Dairy Princess. Miss Bockmier was first alternate in the contest, and took over when a physician advised Miss Linda Werth of Cohocton, New York, to give up her royal title because of almost complete physical exhaustion.

Peggy is majoring in biological sciences in the agricultural college; she will continue her studies at Cornell and take part in the dairy princess program on a part-time basis. She will have the opportu-

ity to represent New York State in the national contest for the title of American Dairy Princess, to be held in Chicago, June 20 to 22.

Adopt Naval Vessel — Rod Hatfield, president of the Tompkins County, New York, local of the New York National Farmers Union, has announced that permission has been granted by the Department of Navy to the farm organization to "adopt" a naval vessel, the destroyer USS Richard E. Kraus, being deployed in the waters off South Viet Nam. The project is designed to help ease the loneliness of duty for the men, and will include home baking and servicemen's kit wrapping, with each farm family preparing letters

about their farms and families, with pictures of both.

National Honor — A 61-year-old Weedsport farmer has been named Airport Operator of the Year by the New York Chapter of the Flying Farmers of America Association. Joseph Whitford owns 300 acres of cash crop land, and raises corn, hay and wheat. He didn't take up flying until he was 44, but it has been a lifelong dream.

Exchange Travelers — Mr. and Mrs. Morris Halladay, Groton, New York, are in Pakistan participating in an exchange program sponsored by Farmers and World Affairs, Inc. They are part of a group of eight farm leaders who will travel extensively within Paki-

stan as unofficial guests of the Ministry of Agriculture, observing and studying the agricultural life of that country. At home Mr. Halladay is secretary of the New York State Grange, and owns a 148-acre farm whose principal crops are hay, grain and Christmas trees.

Re-elected — Bernard W. Potter, Truxton, New York, was re-elected president of the American Dairy Association and Dairy Council of New York at their annual meeting. Donald Jones, Homer, New York, was elected treasurer. Robert Turner, Horseheads, New York, and William D. Allen, Van Hornesville, New York, were re-elected vice president and secretary respectively.

GRAZING ASSOCIATION FORMED

The Conesus Grazing Association was formed last spring by five Livingston County, New York, dairymen. With funds obtained through the Farmers Home Administration they bought a 250-acre farm that has 150 acres in pasture, the remainder in a woodlot. They will use the pasture for summer grazing for their heifers.

Two of the dairymen, George Weppler of Geneseo and Oliver Culbertson of Mt. Morris, pastured their heifers on the farm last summer . . . paying \$12 per head for the season.

Members of the grazing association expect to get extra dividends from the farm woodlot. The New York State Conservation Department is helping them thin out the stands of red oak, hard maple, and basswood. With ASCA and SCS help, the Association plans to reseed strips that had once been planted to corn, cross-fence the cleared land, make water available in every fenced-in area.

Most of the cleared land is covered with a good stand of trefoil and timothy. The association built a perimeter fence last summer.

When the grazing area is fully developed it will provide six months pasture for 150 heifers. The rental fees paid by the owners will make the repayments on the debts, cover costs of seeding and maintaining the water supply, and establish a reserve fund.



Board of Directors of the Conesus Grazing Association (l. to r.): George Weppler, Geneseo; Oliver Culbertson, Mt. Morris; Don Webster, president, Conesus; Lee Schuster, secretary, Dansville.

American Agriculturist, March, 1966



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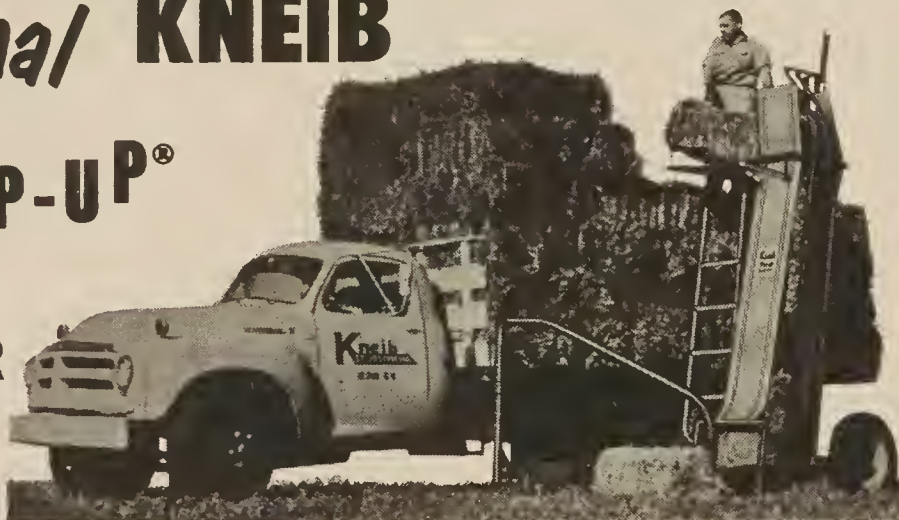
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NORTHEAST FEDERATION

In outlining the plans for Northeast Dairy Cooperative Federation, Inc., of Syracuse, New York, for 1966, President Spofford reports that the Cooperative expects to sell nearly 800,000,000 pounds of milk and milk products during the year.

Equipment to produce aseptic, or "upperized" milk as it will be called, is being installed in a new addition being constructed at the Oneida, New York, plant. This milk is commonly referred to as sterile milk, and the Federation will be the first in New York State to manufacture and offer it for sale. Ultra-modern machinery can also be used in making skim milk in any flavor, whole milk, puddings, gravies, custards, and many other dairy products. It is expected that the initial products will be flavored skim milk for foreign export.

Farm prices for dairymen for the first half of 1966 are expected to average 16 to 18 cents per hundredweight above 1965, says Mr. Spofford, and the Federation will press for adoption of laws permitting standardization of milk.

It is expected that the Food-for-Peace program will have a good effect on the demand for milk and other products. Normal formula adjustments under Order 2 will increase the Class I price by 20 to 22 cents per hundredweight in the first half of 1966, and requests have been made by the Federation and other cooperatives for an emergency increase in the Class I price.

Also on the docket for the Northeast Federation is to continue to work for a merger of Delaware Valley Order 4 with the New York-New Jersey Order 2. It is thought that the time will come soon when a complete northeastern order may be the best solution to milk marketing.

Mr. Spofford is a member of an industry-wide committee, under the chairmanship of Dr. John Carncross, retired dairy economist from Rutgers, which is beginning a thorough study of the laws governing a possible Class I Base

Plan program for Order 2 dairymen. The committee is composed of economists, operations experts, management officials, dairy farmers, and many technical advisors from colleges, and is expected to take most of the year.

YOUTH POWER

The nation's food industry is being recruited in an all-out campaign to carry the theme of proper nutrition to more than 23,000,000 teenagers across the country.

The drive, National Youthpower Week, the second such program sponsored by the National Food Conference, started in early January, 1966, with the mailing of tie-in retailer ad kits by the food industry's top trade association. Organizations who sent complete kits to their members, emphasizing the target week of March 27 through April 2, included: Super Market Institute; National Association of Food Chains; Cooperative Food Distributors of America; National American Wholesale Grocers, Red and White Corporation, and Independent Grocers Alliance (IGA).

The Youthpower Week promotion committee included: Charles B. Shuman, President, American Farm Bureau Federation; Paul S. Willis, President Emeritus, Grocery Manufacturers of America; Malcolm P. Grover, Vice President, Safeway Stores, Inc.; and Leo J. Bushey, President, Red and White Corporation.

The campaign's target period coincides with the seventh National Youthpower Congress, March 20-April 2, in the Sherman House, Chicago. This annual National Food Conference-sponsored event brings nearly 200 teenagers from 25 states to a five day meeting which emphasizes food as it relates to nutrition, careers, and economics. Top industry leaders, educators, and nutritional experts work with the teen delegates in telling "farm-to-table" story.

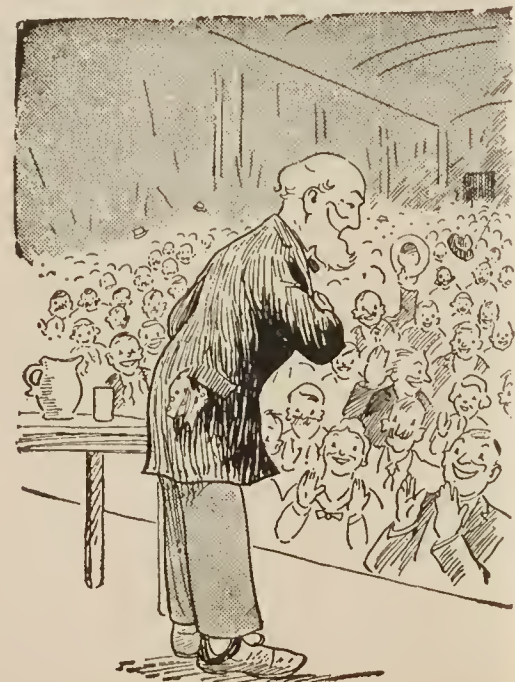
When the youngsters leave the conference and return home, each conducts an individual communications program.

The Song of the Lazy Farmer

When winter's here and cold winds blow, I spend so blamed much time inside where I can sleep and warm my hide, I often pile up too much rest and end the day still full of zest. That's why I'm tickled pink to hear a meeting's scheduled somewhere near; I don't care whose or what it's for, I'm always first one in the door. I find there is no better way to work off steam than at, let's say, a schoolhouse argument on why our taxes have climbed up so high. And if some expert comes to town to tell us why our income's down, it almost always starts a fight that may last for half the night.

Of course, such sessions aren't all fun, because at nearly ev'ry one it's quickly very plain to see that most folks aren't as smart as me. Although I try to hold my tongue, the evening's often pretty young when I decide the time is ripe to take the floor and try to wipe the cobwebs off the arguments by giving them some common sense. The trouble is, it's hard to show dumb

folks the way they ought to go, and so I often have to speak an hour or so until I'm weak. Most often they will see the light and vote the way I think is right, but I so fully deflate some that next time they don't even come.



American Agriculturist, March, 1966

LAMB RETIRES

Leland W. Lamb, former Director Dairy Cattle Breeding Program, American Breeders Service, Inc., retired December 15, 1965.



Leland Lamb

Born on a dairy farm at Northville, Michigan, and reared on dairy farms in Oklahoma and Colorado, Lamb was involved in a variety of dairy enterprises during his youth.

This included selling cream, making and selling butter, helping operate a retail milk route, and selling fluid milk to a condensary and later to a retail distributor.

Following completion of his undergraduate work in animal husbandry at Colorado State University in 1927, Lamb went on to Michigan State University, where he received an M.S. in 1931. He served full time as an Instructor in Dairy Husbandry and Superintendent of Official Testing at Michigan State from 1929 to 1935.

From 1935 to 1939, he was affiliated with Cornell University. While there, he was placed in charge of the Cornell Better Sires Program. He also conducted the Superior Germ Plasm Survey in cooperation with the USDA. From this was developed the famous Cornell "Herd Analysis."

Lamb joined the American Dairy Cattle Club in 1939 as Extension Representative, at the request of its founder, J. Rockefeller Prentice. He later served as secretary and president of that organization.

When Mr. Prentice organized the American Breeders Service in 1941, he asked Lamb to help locate outstanding proved bulls for use in this artificial breeding service. Starting with the purchase of three Guernsey bulls in November 1940, Lamb has been involved in the purchase of over 600 proved sires which have served in the ABS stud.

Following retirement, Lamb will serve as consultant to American Breeders Service. He and his wife Dorothea will continue to make their home at Evanston, Illinois.

FARM VACATIONS

If you would like to have a city family spend some time on your farm, perhaps you'd like to get your farm listed in the 1966 Farm Vacation Guide. This is distributed nationally by Farm Vacations & Holidays, Inc., whose headquarters are at 36 East 57th Street, New York, N.Y. 10022.

In addition to directing city people to spare rooms in the farm homes it lists, the Guide also routes them to housekeeping cottages and to campsite and trailer facilities on the farms. Why not give someone a new slant on farm living? You might even change some ideas yourself, besides adding to your income!

American Agriculturist, March, 1966



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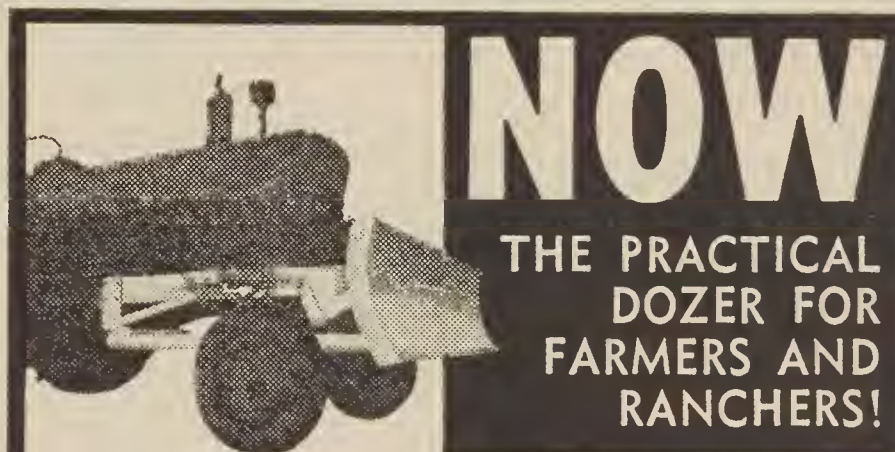
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NITROFURAN DRUGS

THE NITROFURANS are an important class of drugs which emerged from World War II as a potent weapon against disease germs in both humans and animals. Research on the nitrofurans began in 1938 when scientists engaged in anti-microbial research decided to investigate the then little-known "furan ring." The addition of one nitrogen and two oxygen atoms . . . known to chemists as a "nitro group" . . . to a key point on the furan molecule proved to be the answer. An entire family of these compounds was synthesized.

In the wake of the Normandy invasion in World War II, Army doctors found that infected wounds

and burns of many soldiers failed to respond to treatment with any of the available antibiotics and sulfa drugs. Hopefully, the Army tried a furan compound called nitrofurazone, and the gamble paid off. Applied directly to the wounds, nitrofurazone produced rapid improvement and healing.

Man-Made

Nitrofurans are man-made chemicals; they are not antibiotics. Nitrofurans are synthesized in the laboratory and are chemical substances whose only connection with micro-organisms is that they kill them, rather than slow them down. They apparently act by interrupting an important step in the utilization of food by disease-

causing organisms, thus literally starving the organisms to death.

These characteristics, and the seemingly unlimited versatility of the nitrofurans, have contributed to their widespread use in animals and man. They represent a marked advance over other drugs because disease organisms have not been able to build up resistance against them.

Organisms can develop resistance to some antibiotic drugs because these drugs, in themselves, are products of other organisms. In contrast, nitrofurans are literally from another world, and disease-causing organisms have not been able to adjust to their germ-killing action. In their many years of use, no significant bac-

terial resistance to the nitrofurans has developed.

Nitrofurazone, the first of the nitrofurans to prove successful in human medicine, was also the first proved successful in the prevention and control of parasitic and infectious diseases of poultry and livestock. Furazolidone is another nitrofuran compound produced to combat species of micro-organisms long a problem to poultry and livestock raisers. Nihydrazone is one of the most recent nitrofuran compounds produced and found effective against a number of different poultry diseases. Significantly, nitrofuran residues are not left in the tissues when fed to animals, and thus can be fed right up to time for slaughter.

Animal agriculture has come a long way in a few short years. Medicated feed helps produce healthier, more-productive poultry and livestock. Most of the credit for the many advances made in animal agriculture in the past generation, and particularly the past 15 years, belongs to scientific research. Extensive research by the land grant colleges, state and federal experiment stations, and commercial laboratories of drug and feed manufacturers, has produced near miracles . . . not only with animals, but human health as well.



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Hort Show — At the New York State Horticultural Show in Rochester, the winners in the consumer packaging contest for potatoes were: first, Augello & Vigner, Elba, New York; second, Wrobel & Chapman, Bridgewater, New York. Ricelli Fruits, North Rose, New York, took first place in the apple consumer packaging contest, with Beak & Skiff Apple Farms, Lafayette, New York, in second place, and the two third places taken by Lake Ontario Fruit Grower Cooperative, Medina, New York, and Johnson's Orchards, Ticonderoga, New York.



A "ready-made" garden is examined at Cornell University by Professors J. W. Boodley and Raymond Sheldrake, Jr. Chrysanthemums, marigolds, and tomatoes have been tested in these plastic packs for use in window boxes, on patios, or for planting in the ground.

American Agriculturist, March, 1966

DUTCH ELM DISEASE

COMMERCIAL APPLICATION of Bidrin insecticide for the control of the smaller European elm bark beetle in 17 states last spring demonstrated anew Bidrin's effectiveness as a tool in the struggle to halt the spread of Dutch elm disease. So reports a team of research people of the Shell Oil Company.

Bidrin was applied to more than 100,000 elm trees, and to date reports have been received on more than 57,000 of these applications. The trained and certified tree-care specialists who made them say that Bidrin held the breakthrough of the disease to previously uninfected trees to 1.4 percent. The total breakthrough on Bidrin-treated trees, including those which may have been infected prior to treatment, was 2.8 percent.

Bidrin has no effect on Dutch

elm disease itself, which is a fungus, but is simply a means of controlling the disease's carrier, the smaller European elm bark beetle. They said the experience of the commercial applicators fully supported the data obtained in five years of research indicating that Bidrin kills 75 to 100 percent of attacking elm bark beetles within 24 hours for a period of at least 22 days.

The Shell team stressed that an effective program for the control of Dutch elm disease requires that Bidrin, like other insecticides such

as DDT or methoxychlor, be coupled with a thorough sanitation program involving the cutting and burning of diseased trees as well as control of tree-to-tree infection through the root system.

They indicated some controversy has arisen over the effectiveness of Bidrin through its supposed failure to prevent Dutch elm disease in uncontrolled short-range experiments in epidemic Dutch elm disease areas. Under conditions of a heavy insect infestation in a relatively small tree population a breakdown in control would be expected, regardless of the effectiveness of the chemical or the excellence of the design and application of the experiment. Such an experience is common on all crops

under high insect infestations, and is readily accepted by most scientific workers.

In the course of treatments made last year there have been no reports of injury to children, pets, or wildlife. These findings are in accord with the observations made in previous years and support Shell's contention that the Bidrin application represents little or no hazard.

Four reports of injury to operating personnel have been received. All were minor, and the men returned to work in a few days. Investigation of these reports indicates that all injuries resulted from violations of safety instructions given at the training schools and outlined in the visual aid material.

How can I tell if I'm getting a balanced mineral mixture?



FLOCK SIZE

"The size of his flock is probably the most important single factor in earning a livelihood for the poultryman who does not market his own eggs."

John W. Carncross, professor emeritus of the Department of Agricultural Economics at Rutgers University, made that observation.

Reporting on a three-state survey which he recently completed for NEPPCO, Carncross told poultrymen that "there are many factors that contribute to a successful and profitable poultry business . . . yet even if a producer is 'good' in all of them, but has a size of business not competitive with today's trends, his net return will not be satisfactory."

His study showed that small farms in New Jersey, with an average of 5,100 birds, produced an annual labor income of minus \$2,093; medium-sized operations averaging 9,900 birds returned a labor income of minus \$746; and large operations averaging 22,000 birds provided a labor income of \$6,922.

Carncross said that larger flocks enable poultrymen to obtain standard production with less labor time. In the New Jersey study, flocks of 5,000 birds yearly required 1.3 hours of labor per layer. The amount of labor time required to raise a layer on a farm of 9,900 birds, on the other hand, was only 0.9 hours, and this figure dropped to 0.7 on farms of 22,000 layers.

"The day is here," the professor concluded, "when the successful family farm will have from 15,000 to 20,000 or more layers. Some of these farms will be independently financed. In an increasing number of cases the egg producer is likely to enter into some form of contract with egg processors, feed dealers, or other interested concerns."

American Agriculturist, March, 1966



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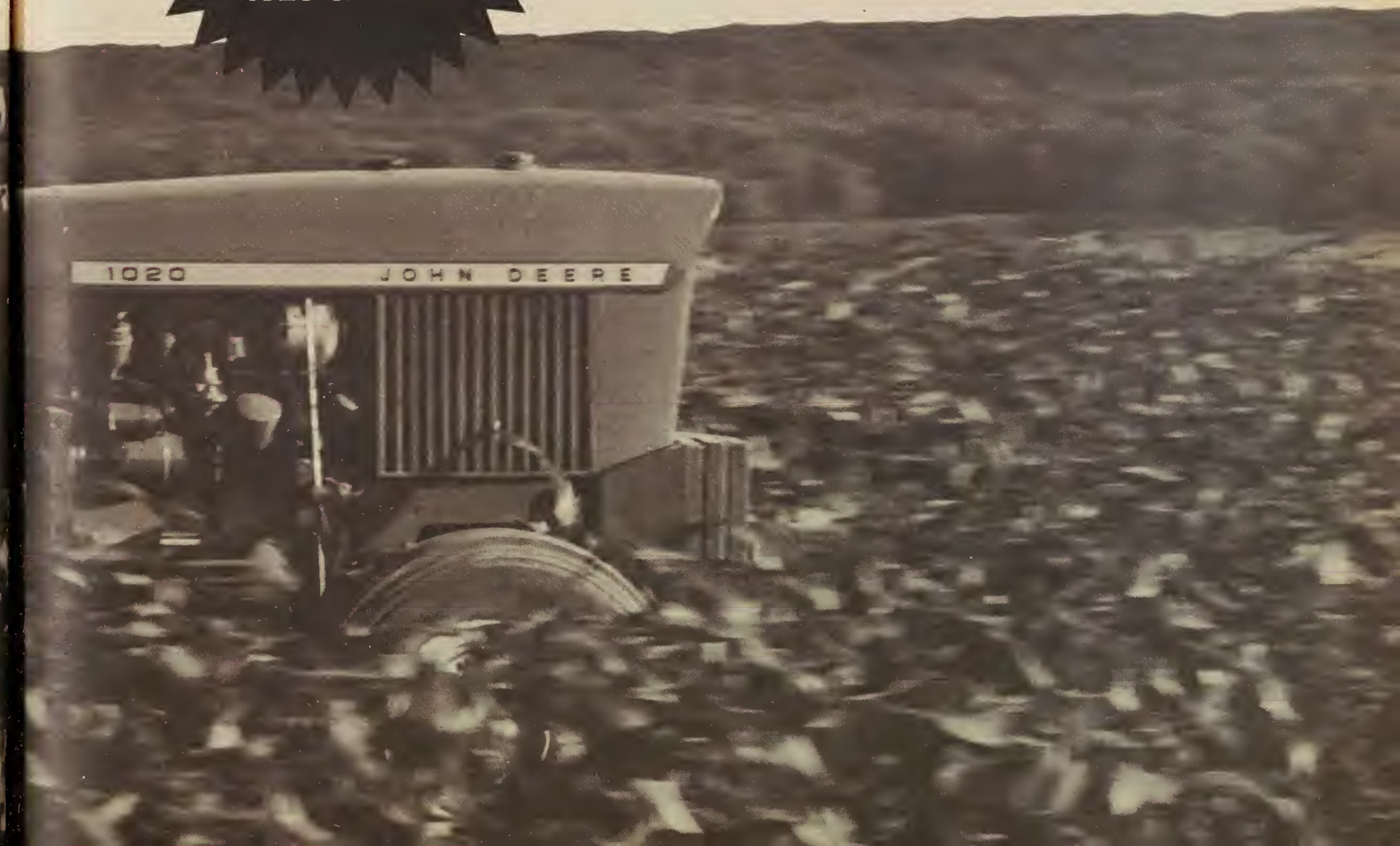
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Base plans

(Continued from page 23)

whose Class I order price (plus transfer costs) has been widely used as a basis for pricing milk in other federal order markets.

Closer Adjustment

Class I base plans can be expected to bring about a somewhat closer adjustment of milk supplies to fluid sales in most markets where they are used. This will be true for the reason that the production of milk for nonfluid uses will no longer be subsidized. It is now subsidized to the extent of the difference between the blend price and the surplus price. The question is whether and to what extent the Department of Agriculture will permit the closer balancing of milk supplies and fluid sales under the Class I base plan to be reflected in Class I prices.

It is reasonably certain that any attempt to raise Class I prices by "shorting the market" will be stoutly resisted. There may be less certainty as to the official position toward modest improvement of Class I prices in situations where these prices have been depressed because of excessive supplies.

In situations, for example, where the price has been reduced through the action of automatic supply-demand adjusters, restoration of the price to a more normal level would seem to be a reasonable objective. Class I base plans may also be expected to benefit producers by providing a degree of insurance against future price reductions that might result from more rapid expansion of milk supplies than of fluid sales.

Bargaining Power

It remains true, also, that the prices established by federal milk orders are minimum prices and that the opportunity exists for co-operatives to negotiate or to establish class prices higher than the order prices. In June 1965, negotiated prices higher than the federal order minimum prices were reported for 20 of the 75 federal order markets, ranging in amount from 5 cents to \$1 per 100 pounds. In December 1965, premium prices were reported for 14 markets, ranging in amount from 5 cents to 76 cents per 100 pounds.

It would not be surprising if the frequency and amount of nego-

tiated premiums, or super-pools as they are commonly called, should increase as the result of adopting Class I base plans. By effecting closer adjustment of milk supplies to fluid sales, such plans will tend to give the cooperatives stronger bargaining power.

Under the present system of federal order pricing in markets where no base plans are used, the uniform producer price is adjusted for location at the same rate which applies to Class I milk. Where Class I base plans are adopted, however, the location differentials applicable to Class I probably will be used in adjusting the base price, but differentials applicable to the surplus class will be used for adjusting the price of excess milk.

To illustrate this, under the New York-New Jersey order, a producer in the 101-110 mile zone would receive 24 cents a hundred-weight more for base milk than a producer in the 201-310 mile zone. On the other hand, the nearby producer would receive only 8 cents more than the distant producer for excess milk. Thus, there will be more of a penalty for producing excess milk near the market than in more distant locations.

Producer-Handlers

A side issue that received a great deal of attention during debate in the House of Representatives on authorization of Class I base plans was the position of producer dealers and how they would be affected. Congressman O'Brien of New York offered an amendment designed completely to exempt from federal order regulations milk retailed by producers who do not engage in interstate commerce.

That amendment, had it been adopted, would have assured a substantially broader exemption than is presently accorded to producer-handlers by administrative action under federal orders. After a lively argument, the amendment was defeated by a rather narrow margin. Not being able to agree upon more positive action concerning producer-handlers, Congress merely stipulated in the 1965 Act that no change in their legal status under the Agricultural Marketing Agreement Act is intended to result from the new legislation.

It would appear that no legal barrier exists to the allocation of Class I bases to producers who retail their own milk. In fact, there seems to be nothing in the law that would justify excluding such producers from participation in a Class I base plan that is adopted as part of a federal milk order. In certain of the federal order markets where large producer-handlers have shown rapid growth, Class I base plans may serve the purpose of preventing further disparity in the opportunities afforded to producer-handlers and other producers.

The Proxmire bill and other legislative proposals for authorizing Class I bases that were considered

(Continued on page 36)



"You certainly show interest in our optional feature, sir."

HOW TO REDUCE COSTS?

by Amos Kirby, New Jersey Editor

THE HOTTEST SUBJECT on New Jersey farms in 1966 is new methods to reduce the labor cost. The uncertainty of an adequate labor supply and the upward trend in wages has made most growers cost conscious.

Bulk bins for handling peaches from the orchard to the grading table is one way that Wilson Hughes, Gloucester County, has of reducing labor costs. It has another value: there is less bruising of the fruit. Special bulk bins that hold 16 bushels are filled with fruit in the orchard. The bins are fork-lifted on trucks. At the grader they are tilted to let the fruit roll into the washer. Labor of from three to five workers is eliminated.

The bins cost \$12.65 each. Mr. Hughes finds that baskets rarely last one season, while the bins are good for five or more years. Actually, the entire cost of a bin may be written off in one year, because the bins are also used for cold storage of apples.

Bulk Tomatoes

Tomato growers are planning on using a 25-pound wirebound box to replace climax and peach baskets at Glassboro Auction market. Labor packing costs on tomatoes placed in 12-quart climax or 16-quart peach baskets have become prohibitive. Wirebound boxes reduce labor costs by 50 percent from three-quarter bushel basket where hand-facing has been costly item. Chain stores and others buy on weight, and are not interested in faced packages.

Alfred Caltabiano, manager of the Glassboro Auction market (where 80 percent of peaches were packed in wirebound boxes) is pioneering the project to have tomatoes packed in the same type of container. Growers are likely to accept the new type of package.

Fertilizer Practices

Labor costs in applying fertilizers are being reduced. The bagged fertilizer is slipping; the trend is toward bulk deliveries, custom spreading, and applying before planting.

John Brockett, agricultural agent serving the strawberry and vegetable areas in Atlantic County, reports that pre-planting fertilizer application has a double purpose. It gets the fertilizer down in the root zone, and growers do not have to depend on rains and irrigation to wash the nutrients down to where they are needed.

He states that fertilizer should be applied to strawberries before the plants are set. While a portion may be applied during the growing season, best results are secured when phosphorus and potash are applied before planting. For spring fertilization apply nitrogen in one form or another. Spring-applied potash and phosphorus are of no value to plant or fruit growth.

White potato growers in Cumberland and Salem counties in South Jersey, and also in Central Jersey, are using bulk deliveries.

Fertilizer arrives in bulk bins, and is loaded direct into planters, at a substantial saving. Other groups are looking with favor on bulk deliveries to the farm.

Many fruit growers are turning to custom-spreading of fertilizers as a means of reducing labor costs. Estimated savings range up to \$10 an acre. Custom-spreading at \$1 to \$2 per ton is a low price as against the \$1.25 to \$1.50 per hour for labor . . . plus no equipment to operate, and no time lost for breakdowns.

EGG PRODUCTION

Planning to carry over some of your layers for another year? If you are, maybe John Bezpa, specialist in poultry science, has some data that will be of value in helping to reach a decision.

John writes that layers should be replaced after 12 to 15 months of lay. He has found that while it costs about 50 cents to carry the layer through the molt, production in the second year will be down 25 to 30 percent. If one has the market for extra large and jumbo eggs, will the fewer eggs make up the difference?

We asked Mr. Bezpa for ideas on how poultrymen could meet the

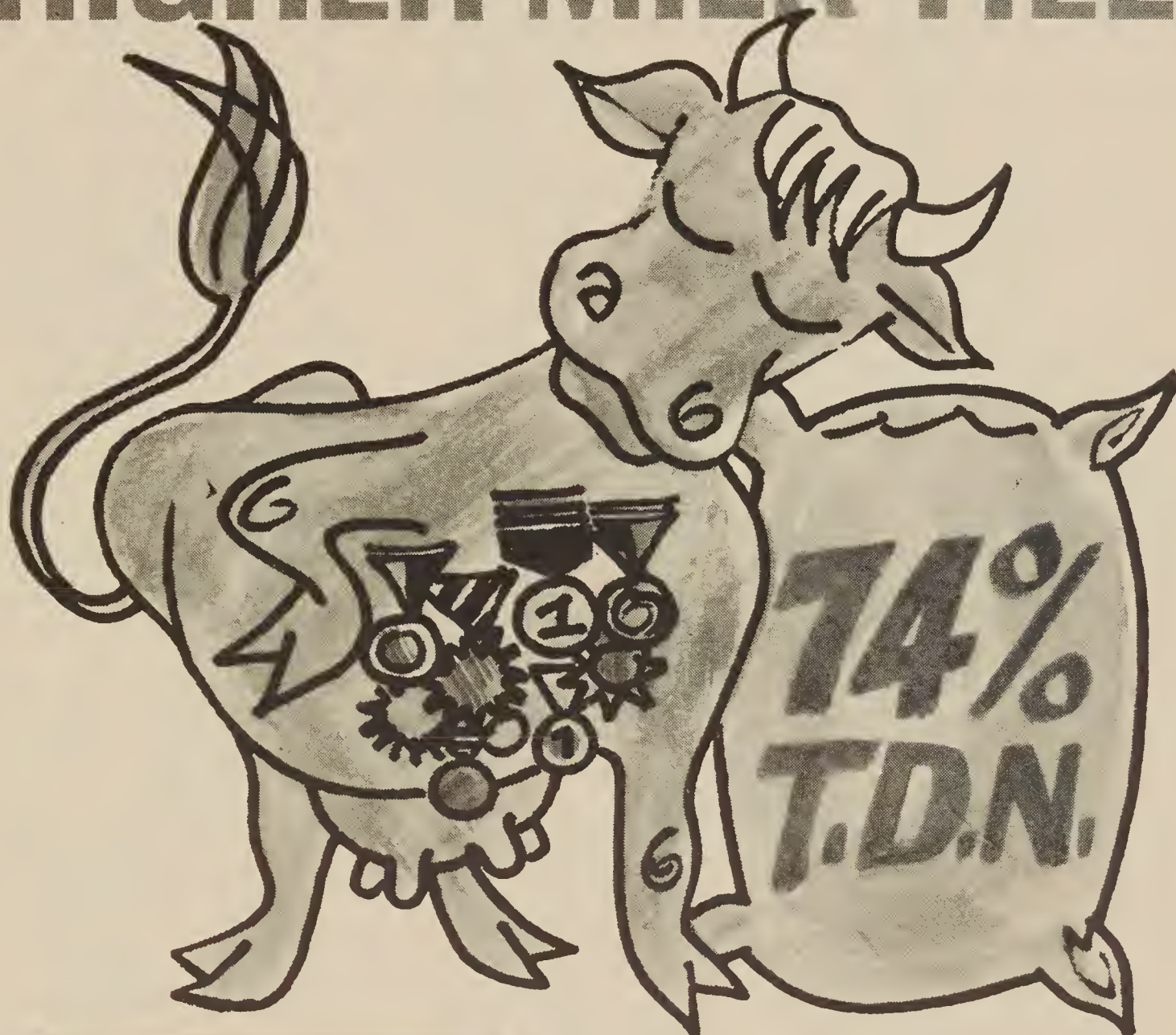
cost-price squeeze next spring and summer. His answer was brief and non-committal. It was "Good Management!"

In a ten-page brochure Mr. Bezpa and his colleagues refuse to admit defeat in meeting the cost-price squeeze. Poultrymen will soon be hearing more about this management problem. Two projects under discussion aimed at aiding producers are:

1. Would a demonstration-type farm be a motivating force in helping producers with production problems?

2. Would a system for poultrymen copied somewhat from the Dairy Herd Improvement Association enable producers to spot leaks in their management programs?

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Base plans

(Continued from page 34)

by Congress before 1965 provided for adding appropriate language to the Agricultural Marketing Agreement Act of 1937. In the new law, however, Class I bases are provided for by substituting a new clause for an old one.

In so doing, Congress eliminated the former provision under which open base plans for seasonal adjustment were established in many of the federal order markets. At the end of 1964 the orders for 29 of the federal order markets provided for such base plans. Any future modification of the existing open-type base plans, as well as the adoption of any new plans of this kind, will have to be carried out in accordance with the new legislation which requires individual voting by producers and does not permit a reduction of base because of decreased deliveries.

Unless extended by further Congressional action, Title I of the Food and Agriculture Act of 1965, which provides the authorization for Class I bases, will not be effective after December 31, 1969. At this point, it seems probable that the present authorization will be extended. The possibility that this will not be done must be taken into account, however, even though it will be awkward to terminate the program after producers have acquired a vested interest in the Class I bases.

Base Period

Bases are to be determined for producers and associations of producers in accordance with their deliveries of milk during a representative period of time. The law imposes no restriction on the selection of a base period. It merely provides that the representative period need not be limited to one year. Presumably, if justified by the evidence presented at a hearing, the base period could be specified as 1965 or a series of recent years.

It would also be possible to define the base period as a series of months in one or more years, during the season when the market tends to be short of milk. Still another possibility is that producers be given a choice of two or more base periods, say 1964 or 1965.

Ordinarily a base period of less than one year, or less than two seasonal periods, is likely to be too short to be representative, and tend to result in many inequities or hardships. On the other hand, a base period longer than two years may not be sufficiently representative of the current situation.

In markets where Class I base plans are quite likely to be adopted, it may be well for the leading cooperatives to put producers on notice that deliveries after a specified month, such as December 1965, will probably not be considered in the calculation of bases. The purpose of such an announcement would be to discourage new efforts to increase production while the amendment is under consideration, in order to obtain larger allotments.

The Act makes no provision for changing producer bases after they have been established under a base plan amendment, except to stipulate that if a producer reduces his marketings, this shall not affect his history of production and marketing for the determination of future bases.

Presumably it would be possible to provide in a base plan amendment for a revision of the bases at specified intervals in accordance with deliveries during more recent base periods, provided that no producer be given a smaller base because he delivered less milk than during the original base period.

Similarly, provision probably could be made for "rolling bases." This would call for using a moving average of deliveries during two or more recent years, or other specified periods, for calculating the producer bases, with the same proviso that no producer be given a smaller base than was originally assigned to him.

New Producers

In formulating order provisions for the determination of producer bases under the new Act, an important question will arise as to the allocation of bases to new producers. On the face of it, the law seems to require that all of the increase in fluid sales be allocated to new producers and to alleviate hardships and inequities among producers.

However, it seems wholly unreasonable that producers who served the market during the base period should be excluded from any share in the benefits of future market growth. That such was not the intent of Congress is indicated by a statement of Senator Aiken when the Conference Report was under consideration. He expressed agreement with a statement previously made in the House to the effect that in the event of an increase in total Class I sales in the market, new producers could be assigned a base representing part of such increase.

It seems that the requirements and intent of the Act with respect to bases for new producers could be satisfied through a provision such as the following: that 25 percent (or other specified percentage) of the daily average deliveries of new producers be used in computing their bases during the first

(Continued on next page)



year, 50 percent (or other specified percentage) the second year, and so on; provided that the total allocation of Class I base to new producers shall not exceed the total increase in the fluid sales. Alternatively, if a system of "rolling bases" using a moving average of successive base periods, were provided for by a base plan amendment, new producers would in time achieve a parity with old producers with respect to Class I bases.

Hardship cases, as referred to in this Act, presumably would include any producers whose deliveries were abnormally low during the base period because of disease, floods, destruction of barns, moving to a new location, and the like. If the base period is well chosen, such cases should not be a serious problem, but some special adjustments of base no doubt will be needed.

The Food and Agriculture Act of 1965 as agreed upon by House and Senate conferees, makes no provision for official review of base allocations, but some arrangement for this should be specified in any base plan amendment. It would be logical to authorize such reviews to be made by the Market Administrator, perhaps with the advice of a producer committee.

Adjustment of Bases

The Act provides that in calculating the bases, producer marketings may be adjusted to reflect sales in any use classification or classifications. For example, if total fluid sales per day during the base period were 80 percent as much as the daily average deliveries of all producers, then 80 percent of the quantity marketed per day by each producer during that period might be taken to his adjusted base. As alternative, the producer bases might be adjusted month by month according to the ratio of total fluid sales to total deliveries of base milk.

Ordinarily the adjusted bases should be calculated so as to reflect the sales of all fluid products even though some, such as fluid cream and low-fat milk drinks, may not be designated as Class I in the present order definition. In New York-New Jersey, fluid cream and milk drinks for the New York City market are in Class II, but the same products outside New York City are in Class III.

In most instances, the total de-

liveries of adjusted base milk should be sufficient to meet the needs of the market. Therefore a suitable allowance for seasonal and other necessary reserves should be included. This also will help to keep the market value of bases at a moderate level.

Out-of-Market Sales

The new law provides that a base plan amendment may call for "reducing the allocation of, or payments to be received by" a producer to compensate for any marketings of his milk to persons not fully regulated by the order. This has been called "the anti-dumping provision." It is designed to protect other markets from unfair competition in the form of

excess milk of base plan producers which might otherwise be disposed of in outside fluid sales at cut rates.

Some safeguard against such unfair competition may well be needed. The problem will be to provide an appropriate safeguard without creating a troublesome and undesirable barrier to bona fide transfers of milk from a federal order market with Class I bases to other markets in the normal course of business. Spokesmen for the administration have pointed out that an anti-dumping provision would be very difficult to administer.

The Act clearly authorizes bases for associations of producers as well as for individual producers.

This is consistent with another provision of the Agricultural Marketing Agreement Act which accords to a qualified cooperative the privilege of blending the net proceeds of all its sales and making distribution to its members in accordance with contracts.

Obviously a cooperative should not be permitted to offset the excess milk of some producers against the under-base deliveries of others. This difficulty would not arise if the cooperative were merely given the privilege of acting as custodian of the bases of its members. Such an arrangement would facilitate the shifting of deliveries of members' milk among the various handlers as well as the diversion of milk to outside markets.

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American Agriculturist, March, 1966

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News and Views from NEW YORK AND PENNSYLVANIA



Hoof Trimming — Lewis Snyder, Sprakers, New York, tells us that he will teach a course on cattle hoof trimming at the State College at Delhi, New York, March 14-April 2. One section of students will be involved eight hours a day, but there is another section for farmers to run from 10 a.m. to 4 p.m. Students will do part of the work at the School, and the rest on dairy farms in the area. To sign up, contact Director of Admissions, State College at Delhi.

Honored — J. O. Sanders, associate in agricultural education at the New York State Department of Education, completed 40 years of service in January and retired from State service. A reception in his honor was held at the Department offices. Mr. Sanders was executive secretary of the New York Association of FFA for ten years before retirement, and served for 15 years on the Advisory Council, and in other offices connected with Future Farmers.

Driscoll — Joe Driscoll, for 34 years manager of the G.L.F. — Agway store at Endicott, New



York, recently retired. He had served on the board of directors of the Broome County Extension Service Association, and had been at different times a member of the

Agricultural Department Executive Committee and the 4-H Club Department Executive Committee. His leadership helped in the development of the Broome County Farm Home and 4-H Center near Binghamton. Joe's leadership capacities were also active amidst Grange and Farm Bureau activities.

District Meets — The Lycoming Soil and Water Conservation District held its annual meeting in January at Warrensville, Pennsylvania. District chairman Gordon Hiller was justifiably proud of the number who gathered . . . 276. Complete with a host of door prizes, entertainment, a fine meal, and awards recognizing outstanding conservation cooperators, this event has each year been one that drew in the crowds.

Dyce Retires — The man responsible for that creamy-smooth honey you enjoy has retired from Cornell University. Professor Elton J. Dyce, world-famous apiculturist, has retired after 23 years at Cornell. He is responsible for a honey process now used in processing 85 percent of all honey in Canada and New Zealand, and in extensive use in the United States and other countries. He turned the patents over to the Province of Ontario in Canada and to Cornell University. The royalties charged in the United States for use of the process have been used at Cornell to further research work on honey. Professor and Mrs. Dyce will maintain their home at Ithaca, New York.

FFA Competitors — Future Farmers of America at the 1966 Pennsylvania Farm Show showed that agriculture already has become big business in their teenage lives. Their largest source of Farm Show winnings . . . \$3,652 in 289 prizes . . . was in the competitive classes for vocational entries or FFA contests. But the FFA boys also invaded the open classes and won. In 12 departments of the Show, Future Farmers placed their entries in competition with adult farmers and took 124 awards in 77 classes.



Pictured here is Arthur J. Black, 87 years old, Forestville, New York. He is holding his 1966 automobile license plate, issued for five years, and pointing to his first license plate of 1905 (also issued for a five-year period). Mr. Black has resided all of his life in the Town of Arkwright, and has all of his license plates and tabs.



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FENCES

Heaven help us if some day we pay local, county, state or federal taxes to finance fencing crews to build and maintain line fences between individual property owners. However, this seems as just as forcing only one party to maintain the fence, and I expect someone will eventually suggest just that.

I see very little wrong with the old law where each party shares the responsibility equally. The purchaser of land, or the operator who changes from livestock to another enterprise, is well aware or should be of fencing laws, and did not buy "a pig in a bag." The livestock farmer, on the other hand, is not in a good position to protect himself against what his neighbors may use their land for . . . or changes they make in that use. It seems unjust that he should incur added expenses just because adjoining land changes in use. He did not purchase his land with that understanding. — *Herbert Shipman, St. Albans, Vermont*

MILK PROMOTION

The last paragraph in the story on Page 22 of your December issue has created some consternation among producers.

The paragraph says: "Dairy farmers who support ADA invest two cents for each 100 pounds of milk they market." Which is entirely correct.

The rub is that Federal Order 2 producers who participate in our program invest three cents for each 100 pounds of milk they market. Some of our directors have been asked how come the rest of the nation only pays two cents?

As you undoubtedly know, when our organization was founded back in January of 1960, the milk producers responsible for its formation insisted that ours be an organization that included both the American Dairy Association and National Dairy Council. This was done to eliminate certain duplications of costs and to keep the milk promotion program in the Order 2 markets under one roof, so to speak.

Consequently, producers in this area who support the program of the American Dairy Association and Dairy Council of New York invest three cents for each 100 pounds of milk they market. Two cents of this is used for ADA activities and one cent goes to the National Dairy Council; so in reality, Order 2 producers are also investing two cents per hundred-weight in ADA.

What a good many people don't

realize is the fact that in the other states of the country there are two checkoffs . . . two cents for ADA and one cent for NDC which are listed separately on the milk check stubs. Here it is listed as three cents for milk promotion. — *John Allen, Publicity Director, ADA and Dairy Council of N. Y.*

JUNK CARS

A number of readers responded to the editor's invitation to "brainstorm" a bit on how to solve the junk car problem.

George Paretz of Wellsburg, Pennsylvania, reminds us that during World War II the countryside was scoured for every scrap

of metal . . . sure hope that doesn't happen again! Another Keystone Stater, Mrs. Kathryn Whitmer of Austin, suggests that junk autos be used to fill the holes left by strip mines.

E. W. Tilton of Mattawankeag, Maine, recommends a state tax levied on every junk car appearing on a person's property. Mrs. Victor Vlasca of Laceyville, Pa., points out that Kentucky has vigorously pushed a state program requiring junk dealers to screen auto graveyards from public view. O. H. Hampsch, Chicago, Illinois, promotes state laws such as Kentucky's, and recommends pelleting cars for use in steel mills . . . or discarding them in a remote spot.

Mrs. Albert Thompson, Wood-

stock, Vermont, and Mr. Alfred Brigham, Sr. of Marlboro, Massachusetts, both suggest that the clunkers cluttering the landscape be dumped into the ocean.

Rufus Smith, Canastota, New York, advises a mandatory examination of secondhand cars when they're sold, and a required disposal program for the various parts of junk autos.

William Selden, of Piffard, New York, reports that he has successfully used junked cars as rip-rap along the Genesee River to prevent erosion. In a similar vein, W. Bronson Tyler, Middle Grove, New York, suggests using car bodies as flood control preventatives . . . dumping them into gullies and strategic spots along streams.



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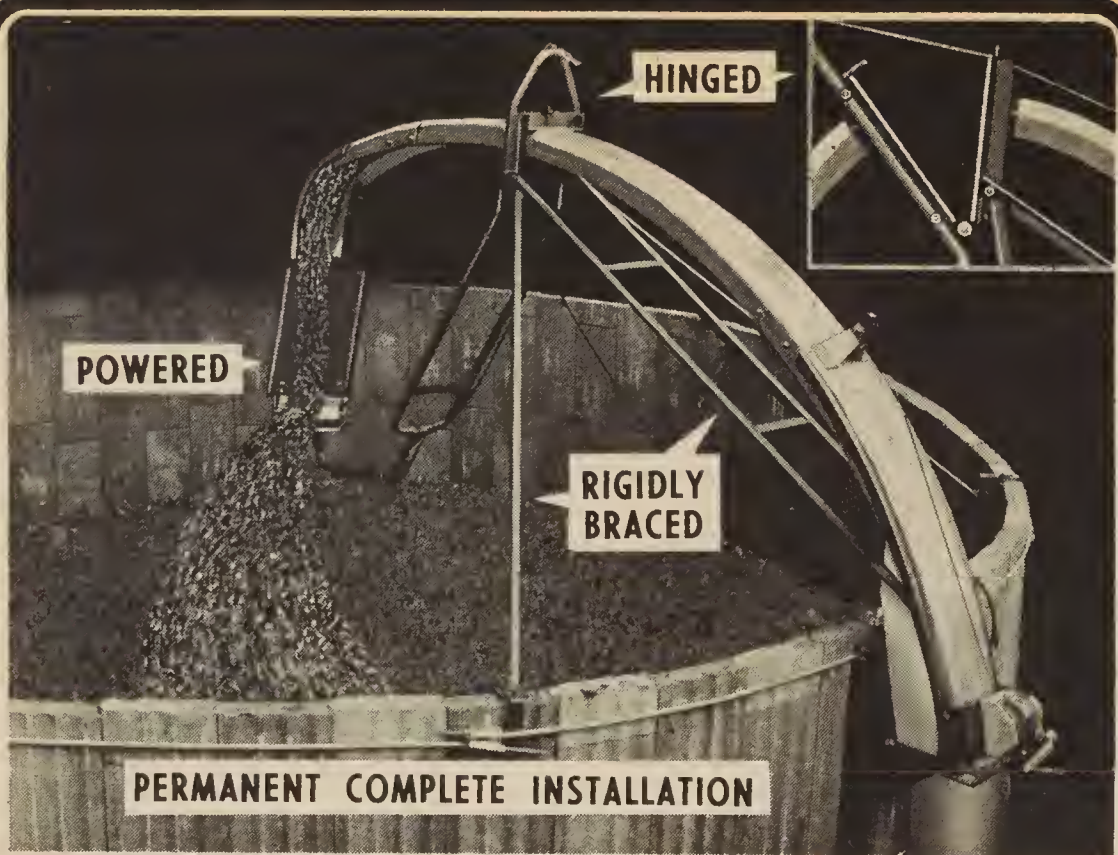
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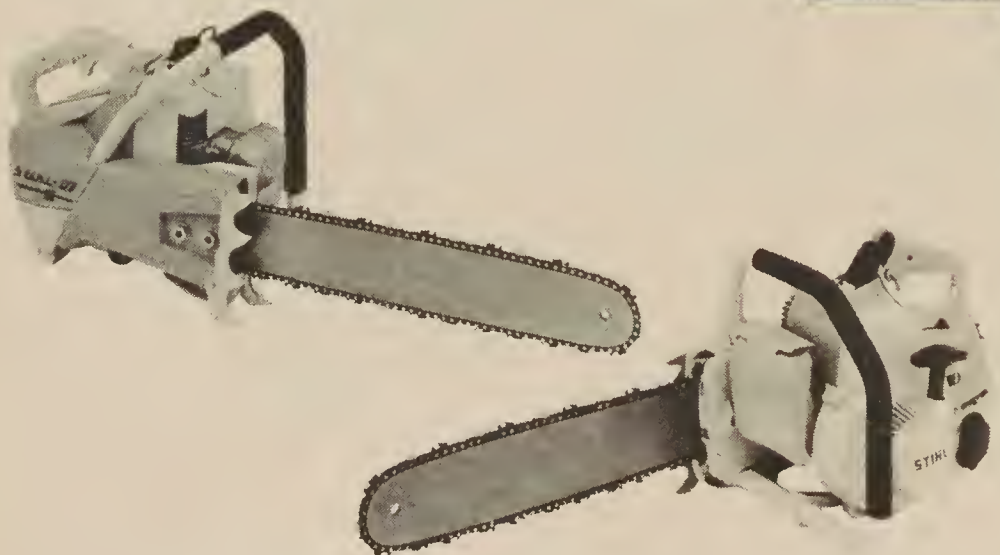
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Gayway Farm Notes

by HAROLD HAWLEY

QUOTAS AGAIN

As time goes on and milk prices continue to show strength, the enthusiasm for any kind of quota plan seems to be diminishing. This does not mean that a good deal of thought and discussion has been wasted. As a matter of fact, I suspect that all of us understand and appreciate better than ever the merits of retaining control of our industry in our own hands. This was brought out pretty vividly at a panel discussion which was held at the American Farm Bureau Convention in Chicago in December, 1965.

Almost since anyone started advocating a Class 1 quota plan for the Northeast, they have cited the fact that several of the Southeast states have quotas and wouldn't have it any other way. Naturally, one can't argue against success, but many of us had assumed that dairymen in the Southeast preferred to operate under quotas because they were in growing markets which took almost all the milk for fluid use... and they wanted to retain a situation which would mean a straight fluid milk price.

This was correct, but comments from many men from those states brought out some other facts. On many farms dairying is not the major enterprise, and alternative uses of land and labor yield comparable returns. It's pretty obvious that their conditions are so different from ours as to make it highly questionable whether their enthusiasm for quotas should influence us at all.

The discussion at that meeting brought out one other major point. Quotas in the Southeast are set by the co-ops... in effect by the producers. The co-ops administer the program. Any growth in the market is passed on to the producers by a change in their quotas, all this without outside help or interference.

When these men heard that under the legislation passed for Federal Order markets any quota plan would be administered by the Secretary of Agriculture, and that the law specifically spelled out that any increase in Class 1 needs would be met by allocation of quotas to new producers and to "hardship cases," they immediately said they would want no part of such a scheme. Their system of local control with growth going to existing producers and with salable bases suited them fine. The general proposals outlined in the Omnibus farm legislation would be as unacceptable to them as to many of us, and they made no

bones about saying so.

A man from Pennsylvania raised a question at that session which pretty much went unanswered, and I have yet to hear a good answer. He asked what would happen if we had Class 1 quotas and a man went out and bought up some additional base so he could expand his operation and then the producers voted out the plan, or Congress failed to renew it. What happens to his investment in bases? He loses it! There have been cases in California where someone has paid big money for the right to supply a certain market and has seen his market disappear. Whatever he had paid for bases was a dead loss, just as it would be here. This happened when a dealer went broke or where a chain store moved in and took the business away from the dealer. This left the producer with no alternative but to sell his cows or buy a base in another market. There may be better ways to go broke but few more certain or faster.

HOW DO THEY DO IT?

We have a couple of gates in our barn that we fasten shut with a piece of light nylon rope tied to a post; we have a couple of cows that seem to have no nobler purpose in life than to untie the ropes. It made no difference to them whether we tied a square knot, a series of granny knots, or just about anything we could think of... a few minutes work with their tongues and the knot would be undone. It got to be a nuisance and a challenge. Finally, we gave up and used some old collars we had left over when we quit tying the cows in tie-stalls. The cows haven't figured out how to unbuckle these straps... yet!

TIME FOR A CHANGE?

The annual meeting of our Dairymen's League local continues to provide another gauge of the rapid consolidation of farm units and the decrease in the number of dairies in a community. The same is true of the membership in other co-ops.

Bulk milk further changes the picture, because farmers no longer need to be restricted to selling milk through whatever co-op happens to have a plant nearby. In any event, the number of producers in some of our locals is getting so small as to make it timely to ask if there might not well be consolidation of some of the locals. It's not unusual for several locals to be

(Continued on next page)

American Agriculturist, March, 1966

shipping to one plant, so there is no longer the close tie of a group of producers in a community to a local plant.

Over the years the local has served well as a unit for discussion and decision, and as a cohesive factor to weld and hold a loyal membership. The conditions it was set up to meet and the reasons for its existence in that form seem to have changed enough to consider if a larger unit would not be appropriate.

A REAL BARGAIN!

Unfortunately, we own no stock in the telephone company. I can, therefore, give them a plug with no ulterior motive. Since the new low long-distance rates for nights, Sundays, and holidays, it is now possible to purchase three minutes of conversation with someone for a ridiculously small amount. Even daytime rates are a great buy. When I see how business men make their time more effective by using the phone freely I wonder if many of us aren't being a bit penny-wise. A few minutes or an hour on the phone sure beats a half day in a car or an exchange of letters.

One of the nicer things which has happened to us lately was a completely unexpected call one evening from friends several hundred miles away. It left us with a real glow... and caused us to resolve to do a little more of that sort of thing.

A Wyoming rancher we know lives more than 100 miles from his dealers. When he has a breakdown, he sits at his phone with a parts book in front of him while his dealer holds a similar book in front of him. This means he makes no useless trips, and can send anyone for the parts no matter how intricate they may be. When distances are great the savings on such a deal are obvious. We can also use the phone for a lot more of our running than many of us do.

THE NEW STRATEGY

For several years as we have enlarged our fields and/or bought new land we have been involved in hedgerow removal. Last summer we started a new system which looks even better now. Always before we have started at one end of a field and taken the stuff as it came... wire, berry bushes, brush, trees, and stones. By spring we would have a lot of piles of brush and limbs and stumps which weren't easy to burn or get rid of.

Last summer we ignored the big stuff that was chain-saw size and just bulldozed the brush and bushes into piles, where by now it is dried out fine. Now we come along with the chain saw, cut the big stuff down, and cut it up only enough so we can push it along with the blade. With the pile of dry dead small stuff for a base we can get a hot fire going which will touch off even the coarse green limbs and body wood. This should mean that we can keep fairly well cleaned up as we go and not end

up next month spending time burning brush when we should be doing something more worthwhile.

The one headache we haven't licked is what to do about wire. That which can be cut out and rolled up can be disposed of pretty easily, but that which is grown into the trees ends up as unwanted metal in the pile of ashes left after a fire. The fast way to dispose of the ashes is to blade them out over the field and plow them down, but the wire and staples dull our enthusiasm for this.

Our crawler tractor just isn't large enough to push out the larger stumps. Having once had a big rig come in and push out whole trees complete with roots and dirt

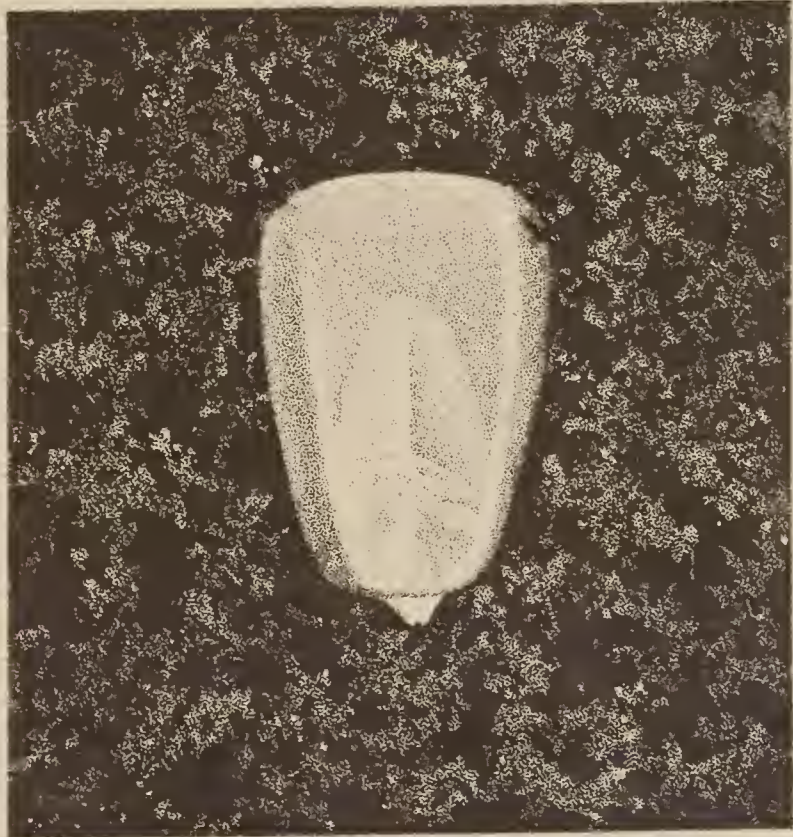
we are willing to do it most any other way. That was just about the worst mess to clean up I ever saw. Now once we get everything out but the big stumps, we usually leave them until the winter before we plan to plow the fields they adjoin, so the bulldozer doesn't tear up a seeding we want to keep. It's a simple and inexpensive matter to have someone come in and push out the larger stumps.

CUT 'EM OFF!

It seems to be standard procedure in the TV westerns to try to "cut them off at the pass!"

A law enforcement expert I am

not! However, I keep wondering if some of our state police and sheriff deputies couldn't use their radios to have someone else cut off a speeding car rather than to engage in a high speed chase which endangers everyone else on the road, and all too often results in an accident... with all its tragedy of injury, death, and property loss. If I were a pursuing officer and chased a speeder until I caught him in a pile of wreckage on a sharp corner it would occur to me that I would rather he had got away. My only point is that with two-way radios it would seem that many of these chases could be avoided by a little teamwork among officers in patrol cars.



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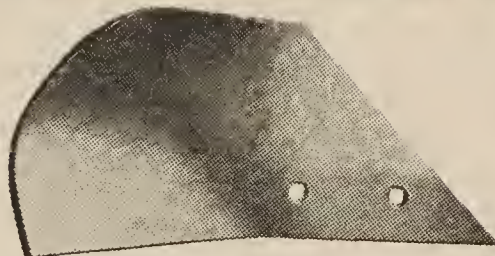
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Eggs move by belts and conveyors to the egg-room; three persons can pack 30 cases in three hours.



AUTOMATED EGGS

by Gordon Conklin

POULTRYMEN Martin J. and son Martin F. Anthonisen of Montgomery, Orange County, New York, have a setup where eggs go from hen to carton with a minimum of labor. In fact, the first time eggs are picked up by hand is at the packing area.

Their laying house is a two-story one, with 9,000 layers on each floor. They use a flat-deck arrangement for their cages, with three rows (each row holding 3,000 birds) per floor. Cages are 18 x 24 inches, eight birds per cage. Three thousand birds are replaced at about three-month intervals, so each row has a different age group. Replacements are raised in another house on the farm.

The egg belts are turned on for collection three times a day. Eggs go down an automatic conveyor from the top floor to the egg-handling room. The next stop is a washer, then eggs move across a candler and then a grader to the packing table. Three people can pack 30 cases in three hours . . . one candling and two packing. The line can be operated by 1 or 2 people in an emergency.

Eggs are held in a walk-in cooler with temperature and humidity controls. Markets include primarily delicatessens in New York City, as well as small retail outlets there. Most eggs are delivered within 48 hours after being

laid. Young Martin developed the sales route, but a man is hired four days a week to deliver eggs to New York City.

Routine chores, in addition to egg handling, require one-half hour per day for one person to check cages for dead birds; another half hour to operate the controls of the powered pit cleaners. Manure drops into a 50 x 36 x 6-foot tank that can store a six month's supply.

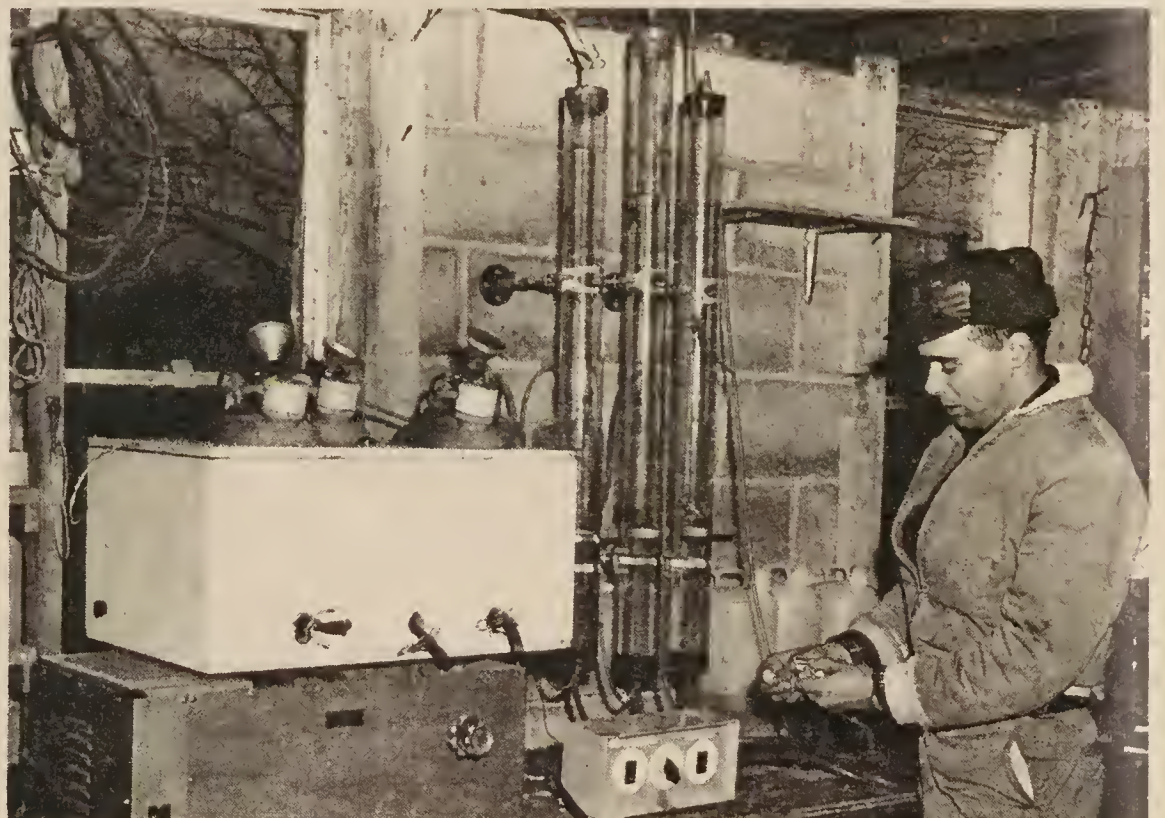
Spreader

The operators of the Goodwill Poultry barn are handy at building things . . . including a 2,000 gallon spreader tank mounted on a used truck chassis. They installed a PTO-operated agitator in the tank and a spinner at the rear.

One man has hauled as many as 25 loads in a day, spreading on the 20 acres of the Anthonisen farm, or on neighboring dairy farms. The Sahlstrom pump that moves manure from pit to spreader can load the tank in two minutes . . . meaning that the man at the pump switch has to be alert or he'll have a geyser of you-know-what!

There's an interesting experiment going on at Goodwill Poultry Farm in connection with manure disposal. At one end of the poultry rearing house is a collection of laboratory equipment, owned by

(Continued on page 43)



Martin F. Anthonisen lights methane gas being given off from digestion process of poultry manure in the laboratory apparatus.

Food For The Spirit



by Robert Clingan

A NOTE OF HOPE

There are times when a church and its ministry need to blast the complacency of their congregation and community. The minister was fully justified who described his calling and his mission: "... to comfort the afflicted and afflict the comfortable."

Yet there are other times when people see signs of impending disaster, evidence of breakdown in the structure of our society and become woefully dissatisfied with themselves.

In times like these, we do not need to have the voices of doom adding to the burdens of our minds and hearts. The "outs" in the political world, the frightened "haves" in a world of "have nots," and the traditionalists who think the world has lost its moorings, do not need to hear messages of tribulation amplified and emphasized to the exclusion of everything else.

There is a prophet in our Bible who speaks to our condition, because he spoke to the needs of his own congregation, community, and nation. His name was Jeremiah.

At the time the nation was beguiled by a false optimism, Jeremiah became a prophet of doom. By every visual means possible he tried to destroy the false op-

timism of his contemporaries. He was so effective in piercing their complacency that the king placed him under arrest, and incarcerated him in a dry cistern that had become an extra cell for an overcrowded jail.

Later, when the enemy was at the gates of Jerusalem, everyone in the city lost confidence in its future. In their hour of common despair, Jeremiah displayed hope and confidence. From his open cell he instructed his private secretary, Baruch, to get his private funds and purchase a building lot in the city of Jerusalem. He demonstrated his faith when everyone else had lost theirs. Do the city and the nation have a future? A prophet

who buys a building lot proves that he has faith that they do.

During the rising tide of Puritan extremism in England, when ancient churches of great beauty were being destroyed, there was a baron who started building churches. One of the churches he built carries a plaque with this remarkable tribute to his memory: "... whose custom it was to do the best things in the worst times, and hope them in the most calamitous."

These thoughts of hope in a time of despair suggest a vivid contrast between modern prophets of doom and Christians of the first century. The "doomsayer" wrings his hands and says: "Look at what the world is coming to." The first

century man of faith, his life shaped by the "Christ event," raised his hands and said: "Look what has come to the world."

Our generation, like every other generation that has passed through periods of turbulent change, must learn to live not by its doubts but by its faith. Prophets of doom are no longer needed; we can see enough to disturb us without their help. Give us instead prophets of confidence and hope, the kind of faith that believes that the powers against the things for which we really stand do not compare with the strength and ultimate victory of the real POWER in the world. By God's victorious power, let us live.

I'm a farmer, not a petroleum expert. So when I buy oil, kerosene or fuel, I have to rely on the recommendations of others. And from experience I found out I can trust the man from Atlantic.

You see, Atlantic puts out a full line of quality petroleum products. Heating oil, gasoline, diesel fuel, lubricants and motor oil. You name it, Atlantic has it. There may be other brands that are almost as good, but there sure aren't any that are better. And when it comes to service, well, you just can't beat Atlantic. My Atlantic man is always trying to make my job just a little easier,

a little more efficient, with lots of sound advice and information on equipment care.

On-time delivery? When he says he'll be here—he's here! Sounds like I'm sold on the Atlantic man. Well, know something—I am!

If you ever bought a "pig in a poke" you're not alone, brother. But you'll never have that problem when you deal with the man from Atlantic.

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ATLANTIC

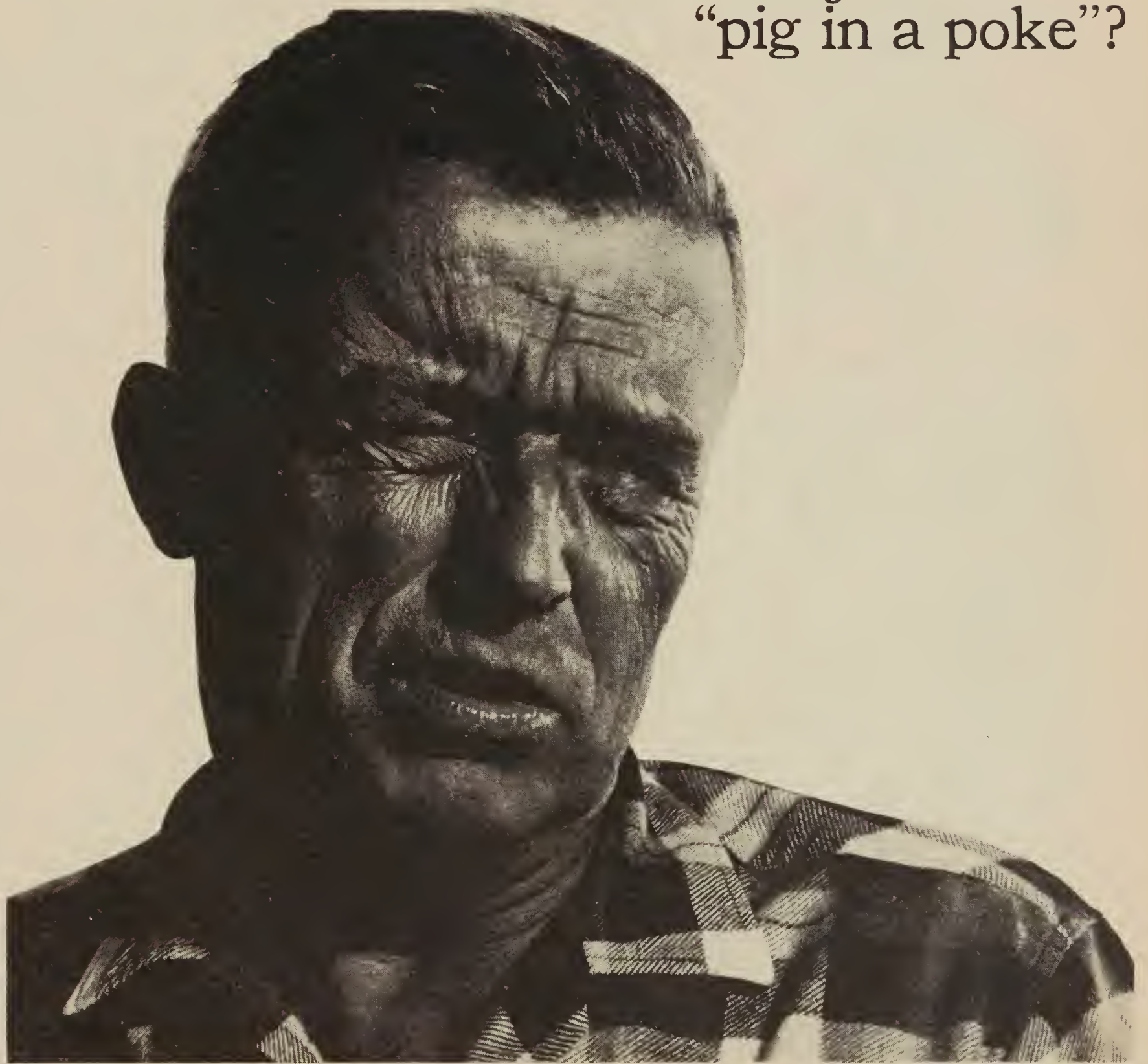
Egg handling

(Continued from page 42)

Clarkson College, designed to digest manure and collect the methane gas given off.

It's hoped that the gas collected can be burned to heat the manure solution to the temperature best suited to the digestion process ... a sort of perpetual motion machine. The by-product is a digested sludge that might be used either as fertilizer, or perhaps fed to livestock as a high-protein component of grain mixes. Arthur Anthonisen is a graduate engineer with special training in anaerobic digestion techniques, and has been working on the project along with his father and brother.

The flexibility of labor force, so characteristic of family farms, is very apparent here. The elder member of the partnership and his wife can get away for a trip to Florida in the winter, and the younger Anthonisen couple spent two weeks in the Caribbean in the fall of '65. Good management, a mechanized operation, and a wide range of skills in the working force ... all add up to a successful business that doesn't require nose-to-the-grindstone attention every day of the year.



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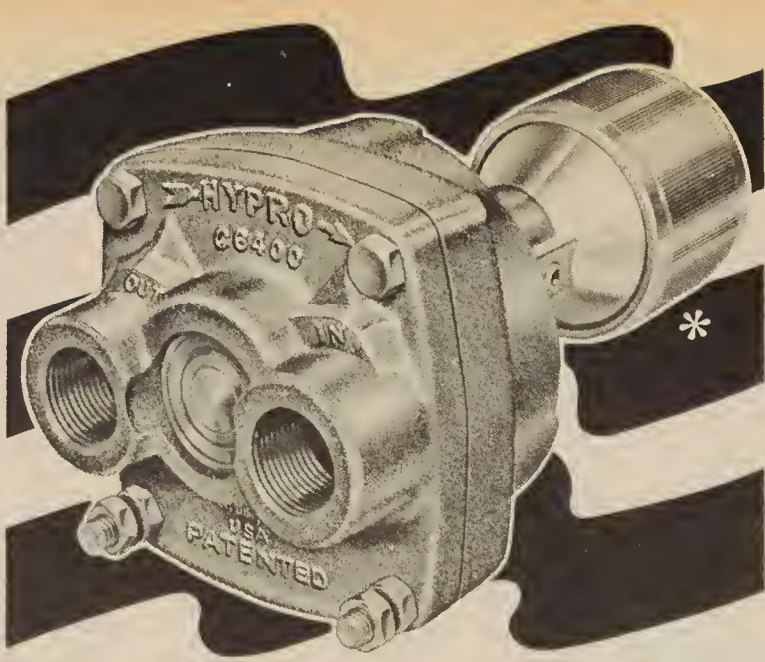
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Karl Dix (right) has experimented with an air-blast spray rig for applying herbicide.

THE SOUTH JERSEY BLUES

by Phillip McCabe

SOUTH JERSEY is one of the oldest continuously-farmed areas in the United States, and it may well be the oldest that still amounts to much in terms of production. That's a proud history, but one which is in almost daily danger of being terminated by economics.

Land costs \$500 to \$600 an acre and is still going up. Unless it is farmed intensively, it won't make a profit. The successful South Jersey farmer, therefore, knows that his future in the business may depend on how responsive he is to favorable new developments in such fields as chemistry, farm machinery and marketing techniques.

High Investment

The result is an investment in equipment, fertilizers and pesticides that may seem high to growers in other areas where the fiscal side of farming is more casual and better cushioned. An onion grower in the Vineland area recently observed, for example, that "this whole soil isn't much more now than the chemicals that have gone into it."

The view gets strong support from many neighbors, some of whom still remember some tough sledding with problems that chemicals helped to solve. No more than five years ago, two vital South Jersey crops, onions and strawberries, were locked in a losing struggle with crabgrass and chickweed.

Both are annual weeds. Chickweed germinates in fall, crabgrass in spring. For years it had been possible... just possible... to pull them out as soon as they grew tall enough to reach with the hand or the hoe.

But year after year the weeds became more numerous, as did the man-hours required to control them. Farm labor, meanwhile, was getting scarcer, and what was available proved to be increasingly expensive. There was a break point in cost. As Joseph Quarella of Bellview Farms, Landsville, put it: "We knew that once the cost reached \$50 an acre we could forget it."

More than that. Quarella, who counts heavily on his onion crop to spell the difference between profit and loss, soon found that in spite of all his effort weeds continued to germinate and to mature. "You just can't have weeds and onions," he states. "Not only do they compete for space and food, but weeds which get in the plant rows can't even be removed before harvest. You pull the weed and the onion comes out, too."

Henry Alvino of Franklinville declared that he would "either have to control the crabgrass or completely abandon the strawberry business." In his fields giant crabgrass came up taller than the crop. Pickers on piece rates balked at being slowed down groping for the fruit among the weeds. "I think we missed half of the berries one year," Alvino recalls. "Five acres without weeds produce more than 20 acres overrun with crabgrass."

Pre-emergence

No one bothered to record exactly how South Jersey and pre-emergence weed control first got together. In a community where virtually everyone has his ear to the same precious ground, it's possible that the message came to all at just about the same time.

Karl Dix of Bridgeton thinks he may have been the local pioneer. He read a report by a Rutgers University expert to the effect that Diamond Alkali Company in Cleveland had completed testing on an herbicide called Dacthal that controlled seed as it germinated. The product reportedly had enough staying power to remain effective for a period stretching from weeks before germination to weeks after. Dix tried some, and found it worked.

In 1963, this herbicide was put to work all over the South Jersey area, and in 1965 an estimated 10,000 acres got the treatment. "My sprayer missed a few rows one year," says Quarella. "They were green with chickweed right down to the seed line... the rest of my onion acreage was cleaner than it had ever been before."

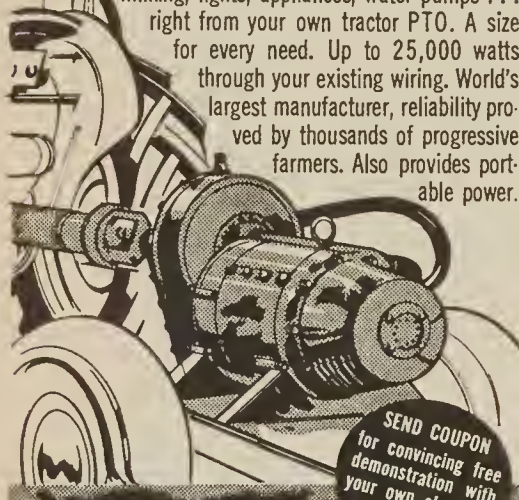
(Continued on page 45)

American Agriculturist, March, 1966

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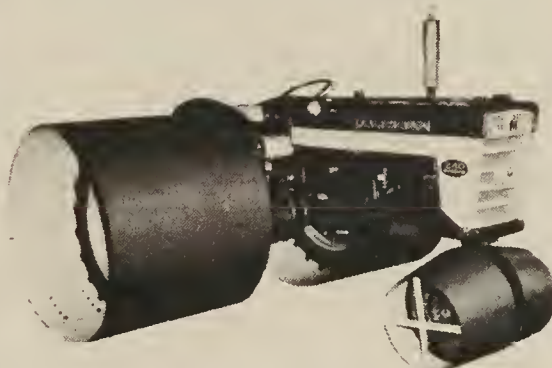
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ALL-AMERICA VEGETABLES

New for 1966 are the winter squash "Gold Nugget," and lettuce called "Butter King." The squash is of softball size, rich gold color skin and flesh. It should make a very popular home garden favorite. Weighing 1½ to 2 pounds, each fruit makes two to three delicious servings.

"Butter King" is a large-headed White Boston type. The height is about 7 inches, with the average head 5½ inches in diameter and weighing approximately 12.8 ounces. It is larger and later than White Boston, disease resistant, slower to bolt, of better quality, and more sun or tipburn-resistant.

All-America selections are chosen for superior quality, primarily for home garden use, for uniformity and yield, disease resistance, and weather tolerance. Newer varieties are chosen each year, but many of the older varieties retain the fine qualities that caused them to be chosen in the first place. For instance, the 1965 vegetable winners included "Savory King," the finest savory leaf cabbage for home and fancy markets; the cantaloupe "Samson," which is outstanding; and the hybrid cucumber "Triumph" stands out over other slicing cukes.

South Jersey blues

(Continued from page 44)

Alvino is still pleasantly surprised by the fact that he has defeated crabgrass before it put him out of the strawberry business. In 1965 he worked his land with eight hired hands. Before he went into pre-emergence control of crabgrass he employed as many as 25, and it seemed that he never had enough competent men to do all that needed doing.

Dix went beyond the efforts of most of his colleagues. He got good weed control with the pre-emergence herbicide, but he also went out of his way to dream up a new technique for applying it. He became the first known American farmer to use the air-blast method in applying herbicides on onions.

His equipment consists primarily of a 400-gallon Myers sprayer that he had used almost exclusively for the application of insecticides in orchards. Propelled by 350 pounds of pressure, the herbicide solution covers a 50-foot swath, with an overlap of about 10 feet out of the 50. The overlap, and occasional overdoses resulting from wind conditions, have proven harmless.

Eventually the South Jersey farmers concede, urbanization and other social developments loosely grouped under the heading of "progress" will overtake the broad, clean, still-profitable fields. When the end does arrive, it will follow close on the heels of a realization that farming there no longer pays.

But that could take a long, long time. The South Jersey landowner continues to look for ways to delay it permanently.

Other earlier choices include the hybrid summer squash "Chefini;" the grey-green "Greyzini;" the snapbean "Executive;" heat-tolerant lettuce "Buttercrunch;" and broccoli "Cleopatra." The first hybrid turnip, "Just Right," chosen in 1960, and the hybrid brussels sprout "Jade Cross," chosen in 1959, are still judged the finest of their kinds.

FIZZ PUZZLE

Two Kansas State University scientists are pursuing the fantastic growth responses they have observed from misting greenhouse

plants with carbonated water (water containing carbon dioxide . . . the fizz water used in soda fountains). They want to find out if the responses are due to the carbonated water or if something else is responsible.

Under ordinary greenhouse conditions leaf lettuce misted with carbonated water produced three times the growth of lettuce grown in control plots. Greenhouse chrysanthemums misted with carbonated water bloomed two weeks ahead of mums in a control trial.

The K-State scientists heading up the experimental work are Dr. William Carpenter, a floriculturist, and George Mowry, an agricultural engineer stationed at K-State by the Agricultural Research Service.

DID YOU KNOW?

New York State was first in maple sirup production in 1965 for the third time in four years, producing 395,000 gallons. This is 23 percent less than in 1964, and two percent less than the 1959-63 average.

One of the newest potato storage houses in western New York is owned by Paul McCormick and is located near Hermitage in Wyoming County. It is arranged so that it's unnecessary to handle potatoes by hand from the time they are dug until they are loaded and on their way to market. Mr. McCormick grows 700 acres of potatoes.



GO AHEAD

. . . ask us how new Nuffields are better!

Nuffield diesel tractors—quality-built by the famous British Motor Corporation—always were good, hard to improve upon. But new Nuffield models are even better! Eight ways better:

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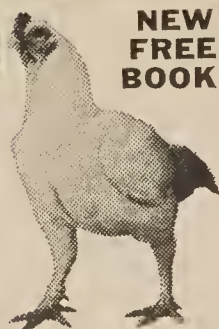
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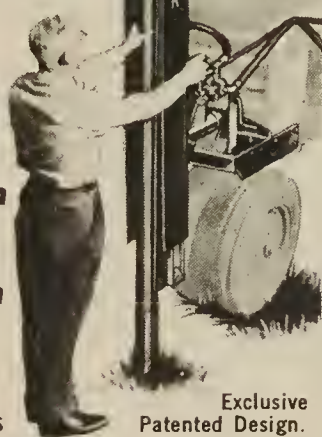
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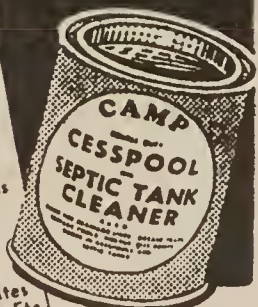
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SHIFT IN VO-AG

"IT'S BEEN the salvation of the Vo-Ag program," says William F. Lampman, supervising principal of the Weedsport Central School in Cayuga County, New York, who is the coordinator of the program.

He's speaking of a cooperative venture that has been underway for going on three years among four centralized school systems in that area of Central New York... at Cato-Meridian, Port Byron, Weedsport and Hannibal. Four teachers are employed in the project, which is under the Board of Cooperative Educational Services, directed by District Superintendent Raymond T. Sant.

Not every school system in the Northeast... even in rural areas... has found the "salvation" for Vo-Ag, and many have eliminated that department. One of the four schools mentioned might have 7 to 12 boys enrolled in "Ag 9" and have perhaps 3 left in the group by their senior year.

Change

In response to the changing makeup of farm-non-farm population, the people who were interested decided to do two things: combine the Vo-Ag resources of the schools under a Board of Cooperative Educational Services program, and supplement the regular agricultural instruction with courses in related areas. Farm Production and Marketing 3 and 4 (junior and senior years) are now available only to boys who live on or are employed on farms.

This ends the "dilution" of classes by students not really interested in farming... a situation previously frustrating to teachers and to farm-oriented students alike. Students are combined from all schools so there are enough students for a broader subject matter approach; I and II students (freshmen and sophomores) continue to be taught at their home schools.

Broader Choices

The teaching job, and the options available to students in Vo-Ag, can now be upgraded by offering courses taught by teachers especially qualified in various subject areas... supervised farming, farm management, dairy, land use and conservation, small grains, livestock (including pleasure horses), leadership training, tractors and engines, field machinery, farm shop, farm buildings, farm electrification, soil and water management, and an orientation and guidance course designed to help students explore a host of agricultural business careers. Teachers employed in the program include Clifford Cole, Cato-Meridian; Howard Finley, Weedsport; Carl Stevens, Port Byron, and Robert Gray, who works half time in the High School program and half time with young farmers in the three-school area.

Typical comment on the advantages of the new setup was a

remark by one teacher: "With only farm boys who plan to farm in Farm Production and Management, I taught more about soils in five days than during a whole year previously... every one of them wanted what I was trying to teach." Previously, a number of boys in the class had no interest in farming, but were there because of interest in some kind of vocational training rather than an academic diploma.

Howard Finley remarks: "This combination of vocational agriculture for those who plan to farm, plus a different vocational program for those who want a salable skill in industry upon graduation, salvages some potential dropouts. Some students who are unhappy about school in general, if they get into a vocational course that really interests them, often make a reasonably good record in all their classroom work. It's a step toward providing an education to students who are being forgotten in the headlong rush to make everyone a scientist... a rush touched off by the competitive challenge of Russia's Sputnik."

Such a program means shuttling students by buses from one school to another, but the pooling of resources and students has brought about an improvement in vocational course alternatives, as well as more "in depth" training.

HYBRID WHEAT

Development of hybrid wheat, the long-time goal of plant breeders, may some day enable eastern farmers to produce enough wheat to feed their own livestock plus enough for a cash crop. Such a wheat would double today's average yield of 40 bushels per acre.

This possibility of growing 80 to 100 bushels of wheat per acre was reported recently at the Seed Conference of The Pennsylvania State University. Penn State's small grains breeder, Robert P. Pfeifer, said he has trials of hybrid wheat averaging 69 percent higher yields than the average of present varieties.

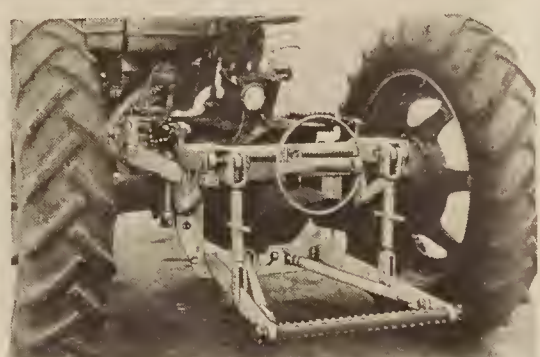
To be successful, hybrid wheat must give the farmer 50 to 150 percent more grain than the present inbred varieties, Dr. Pfeifer reminded seedsmen... a 20 percent increase is not enough. This would produce only 10 extra bushels per acre of Redcoat wheat, barely enough to offset seed cost. Redcoat will normally yield 50 bushels per acre under reasonably good management.

Dr. Pfeifer is optimistic. One of his experimental hybrids has produced 200 percent more grain than its inbred parents. Experts predict it will be five years before hybrid wheats are widely used, because of the tedious nature of hand pollination and other procedures necessary in developing new crop varieties.

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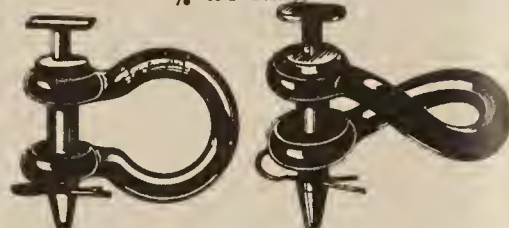
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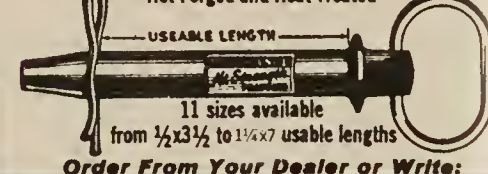
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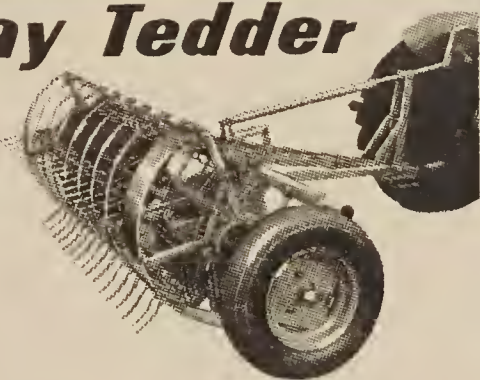
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Dates to Remember

March 4-5 - School for Christmas Tree Growers, Riley-Robb Hall, Cornell University, Ithaca, N.Y.

March 5-12 - Third International Agricultural Exposition, Porte de Versailles Exhibition Park, Paris, France.

March 8 - Annual Meeting, Connecticut Milk Producers' Association, Hotel Statler, Hartford.

March 13-17 - National Farmers' Union 64th Annual Convention, Denver, Colorado.

March 14-15 - Workshop on Agricultural Data Processing, conducted by American Bankers Association, Chase-Park Plaza Hotel, St. Louis, Mo.

March 14-18 - Tree Wardens, Arborists and Utilities Conference, Student Union, University of Massachusetts, Amherst.

March 16-18 - Annual New York Farm Electrification Conference, Riley-Robb Hall, Cornell University, Ithaca, N.Y.

March 17 - Eastern Angus Association 6th annual Angus Futurity Show and Sale, Farm Show Building, Harrisburg, Pa.

March 18-19 - 19th National Conference on Rural Health, Broadmoor Hotel, Colorado Springs, Colo.

March 20-April 2 - Seventh National Youthpower Congress, Sherman House, Chicago, Ill.

March 22-23 - American Feed Manufacturers' Association Feed Production Meeting, Palmer House, Chicago, Ill.

March 24 - Agricultural Leaders' Forum, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

March 27 - Dinner Meeting, New York Flying Farmers, Chemung County Airport, Elmira, N.Y.

18-HOUR DAY FOR LAYERS?

At Beltsville, Maryland, scientists are trying to make a flock of chickens think day changes into night every 18 hours. This would give the hens 486.6 short days per year in which to lay eggs instead of the conventional 365.

In equipping an experimental henhouse, poultry scientists installed time clocks which provide 12 hours of light alternating with 6 hours of darkness. Also, they devised an air-conditioning unit that keeps the chickens warmer (10 to 15 degrees F.) when it is light than when it is dark, thus equalling the difference in outside temperatures between day and night.

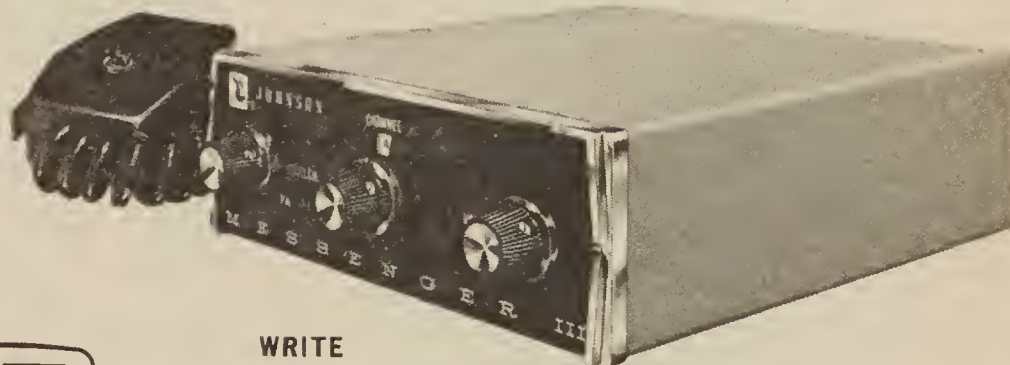
It is too early yet to say whether the experiment will produce the hoped-for results... that is, will hens on short days keep on improving their egg production after those working regular days level off? If this should work out, it is possible that poultrymen will find it more profitable to keep the hens in windowless houses installed with time clocks similar to those used by the researchers.

It is possible, too, that these strains will continue to lay at a high level even when exposed to conventional lighting.

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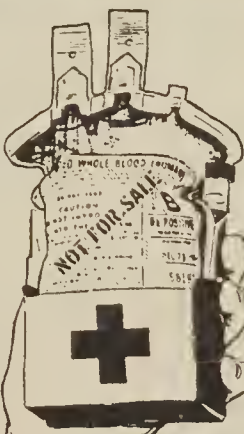
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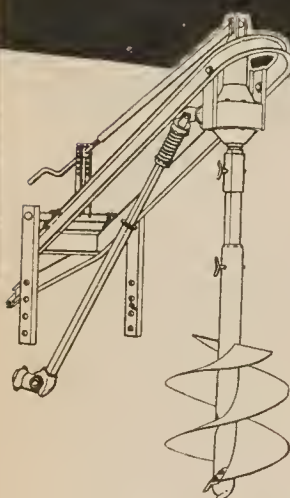
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HAVE YOU always dreamed of going to Hawaii, "Paradise of the Pacific?" Well, don't just dream about it any longer... start making plans to go there in 1966!

To make sure that this will be possible, American Agriculturist is offering you two Hawaiian Holidays this year, one in the summer and the other in October. You can take either tour in just one day more than the regular two-week vacation period, and again the Travel Service Bureau of Needham, Mass., is making all arrangements. Those of you who have ever traveled with us know this means a really marvelous trip.

The midsummer dates are July 29 to August 14, and the fall tour is set up for October 7-23. Both are air tours, and itineraries will be almost identical. The only difference is that those going in October will be in Hawaii for the Aloha Week celebrations, and this will mean seeing the islands in a slightly different sequence. Here are just a few of the things we will see and do on this wonderful vacation.

We will stay two nights in Portland, Oregon, and spend one full day touring the beautiful Columbia River Highway, stopping off to see Bonneville Dam.

Upon arriving in Honolulu, we leave almost immediately for the large island of Hawaii where we will visit Hilo, orchid capital of the world, and see the nurseries where these exotic blooms are grown. We'll also visit Hawaii National Park, Akaka Falls (which are higher than Niagara), tour a macadamia nut processing plant, and pass through the vast Parker Ranch on our way to Kona. A tour of the historic Kona Coast will take us to the City of Refuge, Kealakakua Bay, and Captain Cook's Monument.

Some of the things we will see on the Valley Isle of Maui are Haleakala Crater, the world's largest dormant volcano, "The Needle," a fern-covered volcanic freak rising 2,000 feet above the valley floor, and Lahaina, former capital city of the Islands.

After Maui will come Kauai,

the Garden Isle, and excursions to the famous Fern Grotto on the Wailua River and to Waimea Canyon, "Grand Canyon of the Pacific." There'll be plenty of free time to enjoy the beautiful beaches on this island before leaving for Oahu, most famous island in the group.

On a full day's trip around the Island of Oahu, we'll see the Mormon Temple, Polynesian Cultural Center, a pineapple plantation, and Schofield Barracks. The next day we'll visit the Dole Pineapple processing plant, Kewalo Basin for lunch at Fisherman's Wharf, and take a cruise through Pearl Harbor.

We will fly to San Francisco on Friday, August 12, and have all day Saturday in America's favorite city. Various optional sightseeing trips will be arranged for those who may not have visited here before. The next day a morning flight takes us to Chicago with connections for home airports.

Like all American Agriculturist tours, the Hawaiian Holidays are "all-expense" trips with everything included in the ticket price—all transportation, all scheduled sightseeing, all meals, and all tips.

Other Tours

Our 1966 Grand European Tour will leave New York on May 14 aboard the SS Rotterdam and return on June 21. We will visit Holland, Belgium, Germany, Switzerland, Austria, Italy, and France.

From June 7 to 28, our Scandinavian Holiday tour party will be in Denmark, Sweden, and Norway, enjoying the beautiful scenery and fascinating cities of these northern countries.

Two tours to Alaska (June 7-26 and July 27-August 14) will take us on the beautiful Inland Passage to the Land of the Midnight Sun with stops at many Alaskan ports.

On our British Isles Holiday (September 7-28), we will have a chance to really see Ireland, Scotland, Wales and England, and autumn is the nicest time of year to be in the British Isles. We will

(Continued on page 49)

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Personal Farm Experience



Mr. and Mrs. Erich Cottrell of Waterloo, New York.

interested in the Class I base proposal, and hope it will be adopted. — *Erich Cottrell, Waterloo, N.Y.*

OLD-FASHIONED?

Perhaps I am old-fashioned, but it bothers me when a young farmer assumes a debt load that handicaps him. I realize that a lot of equipment is needed on a modern dairy farm, but once you get the tools you need more acres to make them pay.

It's my feeling that a farmer who is making some money might

well consider making some good outside investments rather than expand his farming operation. For some years we hired our silo filled, but recently bought a chopper. The interest on what it cost would just about pay the bill for custom filling . . . but we can do the job when we want to do it. It is a satisfaction, however, to have someone paying me interest!

My son Laverne and I (he does most of the work) have 120 acres here, and we operate an additional 200 on shares. We have 50 head of stock and milk around 32.

The cows are in stanchions, and it's my opinion that we can give them more individual attention.

Until last fall the milk was custom-hauled, but the man quit when

he had only three dairymen using cans. Now we haul our own milk . . . and also for a neighbor.

In addition to the milk, we sell the wheat from 35 acres, about 50 tons of wheat straw, 50 tons of oats, and 200 tons of hay. In the past we grew red kidney beans, but expect to discontinue that crop.

We grow most of the feed for the cows. Last year our bill for molasses, high protein supplement, and grinding was about \$1,600.

It's difficult for a young man to pay for a farm, but in my opinion there is much more risk in a big operation, and a good manager on a one or two-man dairy farm can do all right. — *Herbert Bobbett, Scipio Center, N.Y.*

LIKES PUREBREDS

We have kept purebred Holsteins for 18 years. I have often told our kids that when a man has no pride, he has nothing. We are proud of our herd . . . that's one reason we stick to purebreds. I think, also, that we are inclined to give purebreds a little better care and, other things being equal, they bring a little more when you want to sell.

Artificial insemination has helped boost production, but has removed the incentive for a dairyman to prove a bull. I am a great believer in cow families, and look for families that produce cows with good appetites and that are rugged and live a long time.

We believe that type is important. For one thing, good type goes along with long life.

We have two daughters who in their younger years were 4-H Club members. They both know a lot about Holstein cattle, and they won their share of ribbons.

One thing that would help the dairy business is better cooperation between cooperatives. I am

Hawaii

(Continued from page 48)

tell you more about this tour next month.

Just fill out the coupon on this page and mail it today to get itineraries and complete cost information for the tours which interest you. Whichever one you choose, you will have a glorious time and travel with the greatest ease and pleasure. On an American Agriculturist tour, you have nothing to do but enjoy yourself!

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(Please print)

American Agriculturist, March, 1966

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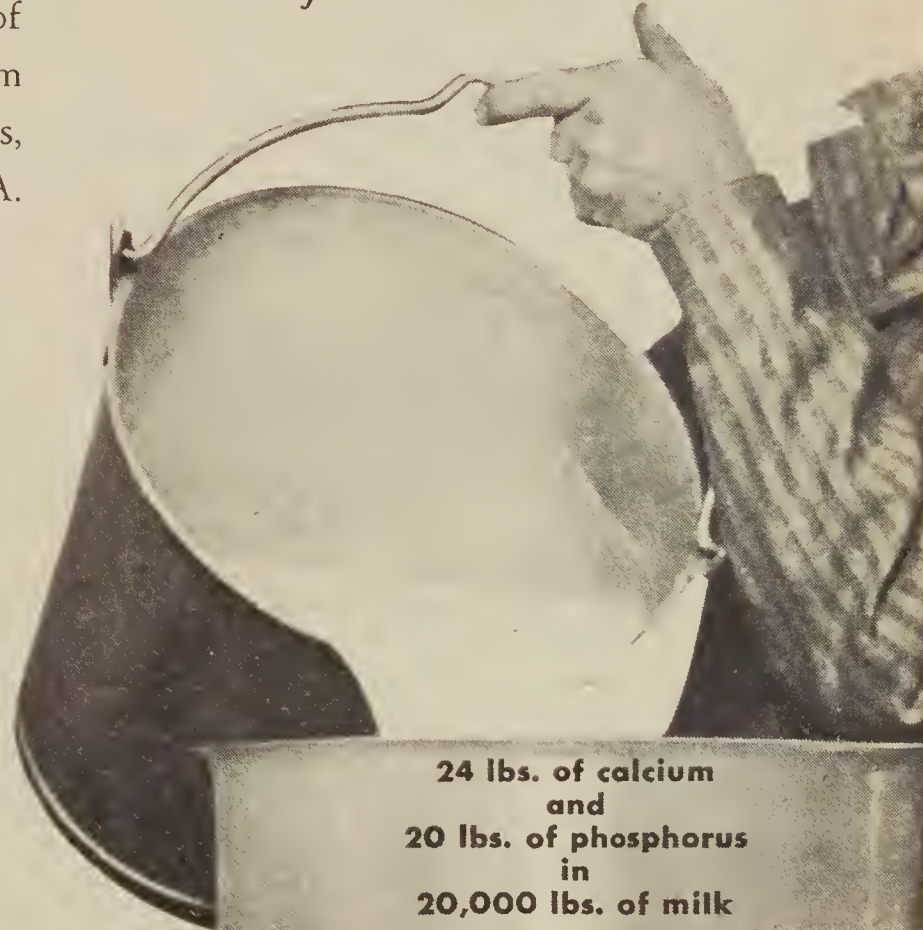
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Dr. Lew S. Mix



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and
20 lbs. of phosphorus
in
20,000 lbs. of milk

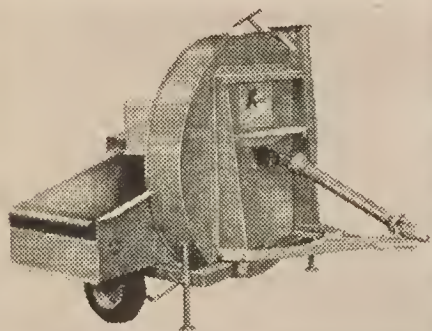
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THE SUGAR BEET STORY

by Hugh Cosline

FOR THE FIRST time in 60 years Central New York farmers grew sugar beets on a commercial scale in 1965.

It was a new crop, and naturally there were problems and lessons to be learned. A year's experience is now behind us, so let's take stock and see where we are:

On March 12, 1965, at the end of the previously-announced grower signup period, growers had contracted to plant only 12,000 acres. The Empire State Sugar Company, with a new plant under construction near Auburn (costing \$25 million) wanted more . . . so the contract period was extended, as was the area . . . from the original 8 counties to 16, going all the way from Orleans to Herkimer counties.

The final contracted area was 26,000 acres, with 21,000 planted, and somewhere around 16,000 actually harvested. Yields are reported as ranging from 2½ to 30 tons, with an average of around 8 tons. (Research trials in several areas in 1964 averaged 12.75 tons per acre).

Some Questions

These facts immediately raise two important questions:

How many growers with low yields will fail to sign a '66 contract, and is it economically sound to grow sugar beets as far away as some growers are located?

The "break even" yield has been variously estimated at between 8 and 11 tons per acre. However, some farmers feel that they have learned a lot, and can do a better job in 1966. A company representative says he expects contracts from 80 to 85 percent of the men who grew beets in '65.

From Orleans County in the west to Herkimer County in the east is a matter of 175 miles. Originally the hope was expressed that enough beets to supply the factory's needs could be grown within 50 miles of the plant.

In addition to the deliveries made at the plant, five dumping points have been designated to which growers deliver beets. They were guaranteed that they would not be charged more than \$1 a ton for transportation to the factory from dumping station at Geneva, Aurora and Syracuse, or more than \$1.75 a ton from Brockport and Westmoreland.

Transport Cost

The growers' association asked the Empire Sugar Company to absorb this cost, but company representatives felt that this would require a cut in the price to all growers, and that it would be unfair to nearby growers to help pay transportation costs for those in outlying areas. This might be a factor persuading some distant growers to discontinue the crop. Eventually, it is hoped to take beets to the factory by water on

the Barge Canal, which would lower transportation costs.

Without in any way trying to make this a growers' guide, let me point out some of the production problems:

1. Beets require a deep root zone. Suitable land is limited, and beets are commonly grown in a four-year rotation, so only one acre in four is available in any one year.

2. The crop loves lime, but some farmers want potatoes in the rotation, and soil with lime enough to please beets is likely to cause scab in potatoes. Also, if you add lime, do not expect to add it in large amounts for beets and get good results the same year!

3. Sod ground is not recommended for sugar beets, neither is corn ground where atrazine was used to control weeds the previous year.

4. The ideal stand of sugar beets is one beet per foot of row (or maybe 1 beet per 8 inches). But a beet seed is relatively small, and to get a good stand more seed is planted than needed. That means thinning. There are two ways to do that: by hand using a hoe . . . which is too costly . . . or with a machine. To do a good job of machine thinning you need a uniform stand to start with.

A big step forward was made some time ago in developing monogerm seed (essentially one seed instead of several together) but still a specially-designed planter is needed for a good job. Modified bean planters have been tried but found wanting.

Beet thinners are adjustable. The grower counts the number of plants per 100 feet and adjusts the machine to leave as near one plant per foot as he can. Beets too close in the row will cut yield drastically.

Weeds

Weeds can also reduce yields to unprofitable levels. Hand weeding is costly, and chemical weed killers have been developed so they do a good job in the row. Some growers experienced poor results with chemicals in '65, but others reported a high degree of success. Cultivation is still recommended when weeds appear between the rows, or when a crust is formed on the soil.

In 1965, a big limiting factor was lack of moisture, but there is no guarantee that '66 will bring any more. We might even have less!

Harvesting is considered one of the bottlenecks of growing sugar beets. To be profitable the crop must be harvested by machines which, as grandma used to say, "cost a pretty penny."

Beets are a long-season crop, and sugar is deposited relatively late in the growing season. Many fields were harvested late in 1965 . . . some in January, 1966 . . . and some fields (including some

(Continued on next page)

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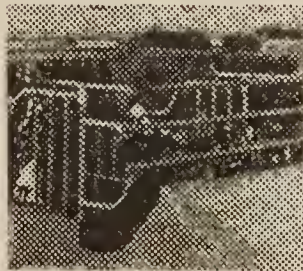
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low-yielding areas) were not harvested at all... which was a source of annoyance to growers.

As might be expected, some friction developed between growers and the Empire State Sugar Company, but differences of opinion do not seem great, and I find a considerable volume of opinion that they could have been avoided... and can still be resolved. I try to present both sides of a disagreement fairly and without partiality. If both sides complain a bit, I know I have been successful!

A growers' association... the Finger Lakes Sugar Beet Growers Association... was formed early in the game. Its officers and members put in untold hours in getting things underway.

One obligation the Association has assumed is to put its O.K. on contracts. Some points in the '65 contract were unsatisfactory to growers and changes were proposed. I am told that the plant management considered the suggestions, revised the contract, and submitted it to the Association officers.

It was not given an O.K., and following this the plant management sent contracts to individual growers, very few of which were signed and returned.

Organization

Here I put in the personal opinion that where a crop has but one buyer, as is the case here, an organization of growers is exceedingly important. Of course, to have a strong organization members

must support it, which they seem to be doing.

Because of this situation, the assumption was made by a few growers that the plant management refused to deal with the Association. So far as I know, plant management never took such a position.

Another source of annoyance, or perhaps I should say misunderstanding, is the contract provision for deductions called "Tare"... which one newspaper account called "Tear."

The contract provided for deduction for stones, dirt and leaves, and for beet tops down to the lowest leaf scar! (The top of a sugar beet has little or no sugar). Where beets are evenly spaced and not too close, the harvester can be adjusted to remove the top of the beet to include the last leaf scar, but where they are unevenly spaced, and therefore vary in size, a good job cannot be done in the field.

Tare is figured this way: when a load of beets is delivered it is weighed... and the weight deducted from the gross weight.

But the beets are still not clean. A sample weighing from 25 to 50 pounds is taken from the center of the load, the sample is thoroughly cleaned, leaves and tops and dirt weighed, and the percent deduction applied to the entire load.

Some misunderstanding seems to be due to failure to read the contract. The average "tare" runs around 14 percent, but some loads

harvested late, when ground was frozen or muddy, ran close to 50 percent. One grower told me his "tare" averaged 7.8 percent. It's not difficult to imagine considerable disappointment on the part of the grower. For one thing, he is paying transportation costs on a lot of dirt!

Opening Delay

Another source of concern was the delay in getting the plant into operation, which was accomplished early in January. Meanwhile, the beets lay in piles (sometimes covered with snow) and growers feared that an appreciable amount of sugar would be lost, thus reducing the price.

Payment is made on sugar content, which averages around 15.3 percent and for which the company pays an average of \$12.54 a ton. (In addition, each grower gets a Sugar Act payment from the federal government averaging \$26 per acre). Also, if a grower plants sugar beets and has a crop failure through no fault of his own, he is eligible for an "abandonment payment" of \$8 an acre.

Empire will pay growers around \$1,250,000 for the '65 crop, and the Federal Government will make Sugar Act payments to farmers of around \$250,000.

The plant management, I am told, wrote each director of the growers association guaranteeing that the loss from exposure in the weather would not exceed .3 of 1 percent.

In good faith farmers have in-

vested thousands of dollars in time and equipment. The Empire State Sugar Company, a subsidiary of the Pepsi Cola Company, has built a \$25,000,000 plant near Auburn. The College of Agriculture at Cornell is carrying on an extensive research program designed to make the crop more profitable.

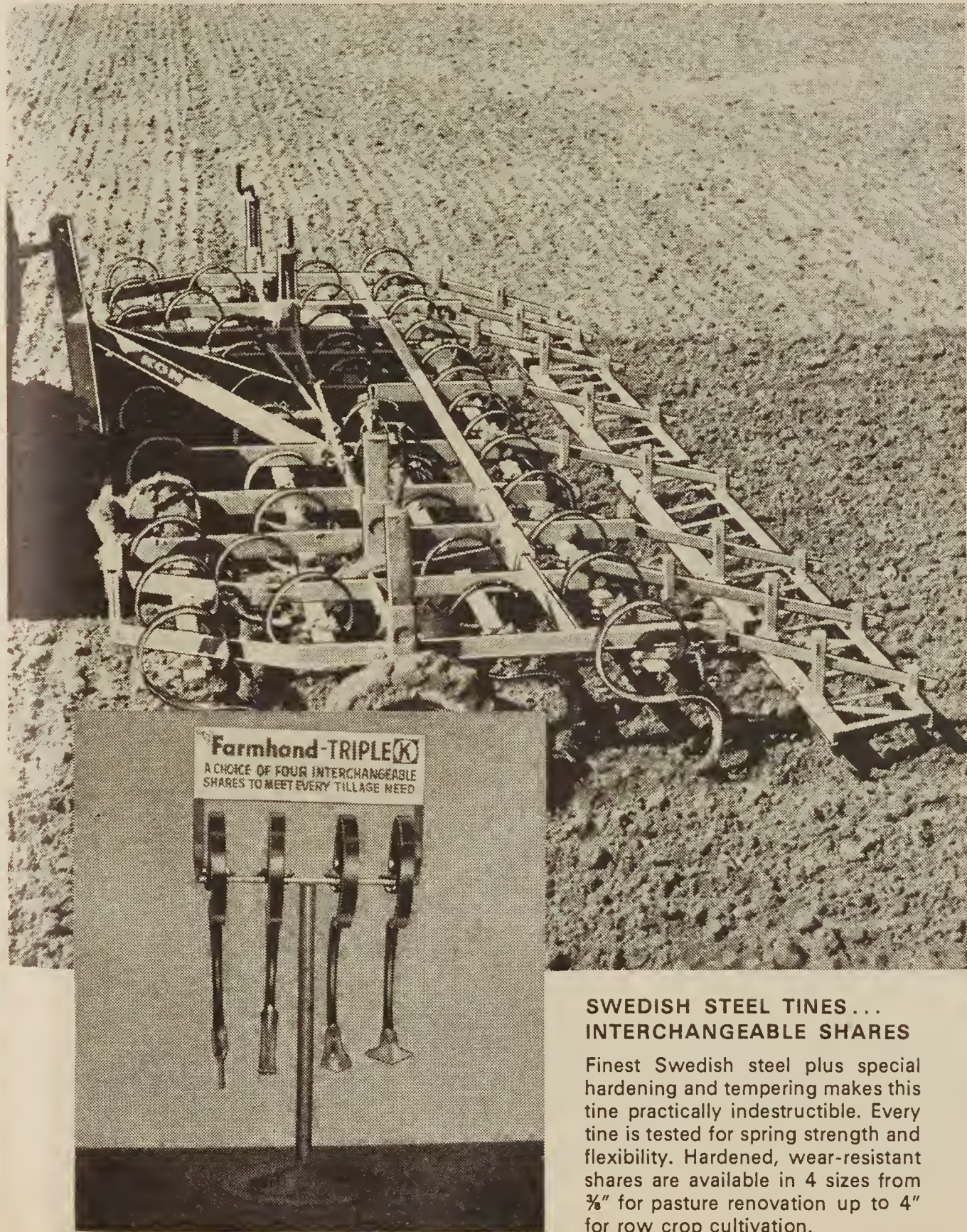
An important part of this is the development of a higher-yielding variety, better adapted to Central New York conditions, and perhaps with a higher sugar content. Work is being continued on chemical weed control, on the best plant population per acre, and on other factors influencing yield.

The plant hires around 280 men for about 10 months; sugar beets supply the raw material for only two or three months. This is the only plant in the country capable of handling both beets and raw cane sugar. When the beets are finished the plant is cleaned, adjusted, and reopened to handle cane sugar until fall.

Once started, the plant runs 24 hours a day. The wages of 280 workers has given an appreciable boost to Auburn economy.

There may still be questions about the eventual place of sugar beets in the economy of Central New York, but having come this far it's folly to "rock the boat."

Meetings have been held between representatives of growers and the processors. If agreement is reached before we go to press we will let you know. If not, we hope to give you the facts in the next issue.



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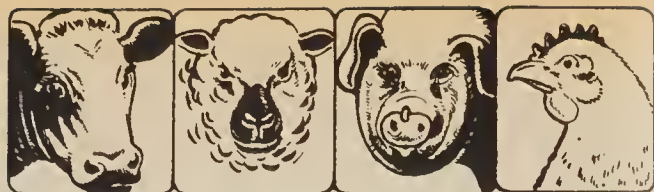
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THURSDAY, MARCH 17, 1966

Show: 9:00 A.M. — Sale: 1:00 P.M.

4 BULLS — 46 BRED & OPEN HEIFERS

For catalogs contact:

EASTERN ANGUS ASSOCIATION

FINKSBURG, MD. 21048

Carol E. Hackney, Sec.—301-848-6990

RIDGE MEADOWS FARM COMPLETE DISPERSAL

Thursday, March 31, 1966

12:30 p.m.

Williamson, New York

The sale will be at the farm 1833 West Ridge Road, Williamson, New York, 20 miles east of Rochester.

40 Registered Brown Swiss

(25 cows in milk—6 bred heifers—9 open yearlings and calves)

The complete dispersal of one of New York's finest Brown Swiss herds. 1965 DHIA herd average with 14518M-601F. 4 cows (1 Ex-3 V.G.) with official records in excess of 800F. Most of the herd sired by top Curtiss and NYABC Sires and 47% of the herd trace directly to our foundation cow, Ridge Meadows Trudy's Tessie (V.G.—804F). 1 Ex—12 V.G. and 8 G.P. cows sell in the milking herd. This herd is in excellent physical condition, certified, vaccinated, T.B. Accredited, eligible for interstate shipment.

Complete line of Farm Machinery also sells

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WILLIAMSON, NEW YORK
PHONE 524-9559

NEW YORK ANGUS BREEDERS SHOW AND SALE

April 16, 1966 at Cornell University

ITHACA, NEW YORK

SHOW 9:00 A.M.

SALE: 12:30 P.M.

16 SERVICE AGE BULLS — 28 BRED HEIFERS

14 OPEN HEIFERS

This consignment, selected from sound, breed improving registered herds.

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Mike Pangburn

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Must sell. Chestnut stud—Royal King Breeding, dappled grey mare, chestnut gelding. Call anytime, Mr. Cass 516-SE2-8325.

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G. B. Van Wyck, owner

THURSDAY, MARCH 31, 1966

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63 head of heavy milking cows and bred heifers
19 very nice calves
1 yearling bull

60 lactation records average 11, 857 milk and 609 fat M. E. This is a very good herd from which to get your replacements or foundation cows.

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REGISTERED POLAND CHINA weanling boars and gilts. Full brothers at Alfred Testing Station averaged 29.4 in. length, 1.36 in. back-fat, and 4.34 sq. in. loin-eye, with feed conversions of 3.11 to 1 lb. gain. Richard Crye, Avon, New York.

YORKSHIRES—BREEDING STOCK by PR and CMS Boars. Brucellosis accredited. Umbrian Farms, Lafayette, New Jersey, Telephone 201-383-5441.

GRADED FEEDER PIG Auction, April 1, 1966, 8 P.M. E.S.T. (Evening Sale) Geauga Livestock Commission, Middlefield, Ohio. 800 head mixed breeds, sold by weight. Vaccinated for cholera by licensed Veterinary with modified live virus and serum. Consignors pay vaccination. Bank reference required. Additional information call Tom Givan, Ph. 632-6681. Northeast Ohio Graded Feeder Pig Sale.

FEEDER PIGS THAT Eat and Grow \$17, each. Vaccinated and delivered in 100 head lots, shoats over 40 lbs. \$22. COD on approval. C. Stanley Short, Cheswold, Del.

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AUCTIONEERS — Livestock and farm auctions. Complete auction and pedigree service available. Harris Wilcox. Phone—Bergen 146, New York.

FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

American Agriculturist, March, 1966

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AUCTION SALE: Farm tractors and equipment and Industrial tractors. New Jersey's largest annual Auction. All types including balers, choppers, wagons, crawlers, backhoes, blades. Tools and small items. Saturday, March 26, 1966—9 A.M. J. Percy Van Zandt Co., Blawenburgh, N. J. (On route 518 just off route 206 north of Princeton).

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Be sure to give saw name, bar cutting length, and pitch used or number of drive links in chain. Send check or money order today to:

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Classified Ads

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April Issue.....Closes March 1

May Issue.....Closes April 1

June Issue.....Closes May 1

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108 ACRE FARM, on main highway, near Broome Co. village, 10 room house, equipped restaurant, barn, 3 car garage, about 40 A. river flats, owner will consider terms on this attractive property—W. W. Werts Real Estate, Johnson City, N. Y.

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FARMING PROFITS! Productive 219 acres. \$18,000 dairy and general produce income reported by owner! 213 tillable acres, fenced and cross-fenced, Pond & Streams. Distinctive 10 room Colonial; 6 bedrooms, bath, 5 Fireplaces, basement, furnace, 2 car garage. Extra Home: 4 bedroom, bath, furnace, basement. Grade A dairy: 36 ties, milk room, piped water, bulk tank, pipe line milker, 2 silos, barn. Owner retires. Exceptional Value — Underpriced! \$80,000, terms. Strout Realty, Rte. 2, Box 5, Thurmont, Md. (301) 271-2780. Free Local Lists!

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GRADED HAY STRAW all kinds shipped anywhere, Phone 201-748-1020. Desmond Hay Service, Box 402, Bloomfield, New Jersey.

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HAY—1st and 2nd cutting, Straw and Corn. We Deliver. Registered, Bonded. Elwin Milner, Stanley, N. Y. Phone LYric 6-2664.

GOOD QUALITY HAY delivered anywhere. Marcus Delong, Romulus, N. Y. 14541. Ovid 869-5675.

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GRADED DAIRY ALFALFA and other Grades. Art Callari Hay Co., Upper Sandusky, Ohio.

GOOD QUALITY TIMOTHY Trefoil Hay For Sale \$30. Ton. Larry Young, Belfast, N. Y. Phone 186J2.

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DAIRYMAN WANTED. FULLY experienced in operating milking machines and caring for cows. Excellent housing for married man. Steady year round employment. Top wages and bonus. Garelick Farms, Franklin, Mass. 617-528-9000 days or evenings call Israel Garelick 617-528-1122.

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Serve Chicken Anytime!



Photo: Dudley-Anderson - Yutzy
Savory Arroz con Pollo or Spanish Chicken combines a thrifty broiler-fryer with saffron-flavored rice, frozen peas, and canned tomatoes.

CHICKEN HAS ALWAYS been a favorite on the American dining table, and today a superior bird, the broiler-fryer, can be enjoyed the year round. These chickens are economical, government inspected, and vary in ready-to-cook weight from 1½ to 4 pounds. They also carry generous amounts of essential nutrients and are low in fat.

The broiler-fryer may be fried, roasted (stuffed or unstuffed), broiled or rotisserie, barbecued, and stewed to use in any number of dishes — casseroles, salads, croquettes, and pot pies. Space just will not permit me to tell you about all these cooking methods. Following are suggestions for pan or oven frying chicken and a few of my favorite recipes. I hope you'll enjoy them.

FRIED CHICKEN

Choose a broiler-fryer about 2½ pounds in weight and prepare as follows for either oven or pan frying:

Wash, drain, and pat chicken pieces dry. Shake two pieces of chicken at a time in a paper bag with ½ cup flour, 1 teaspoon salt, ½ teaspoon paprika and ¼ teaspoon pepper or poultry seasoning, if desired, coating each piece evenly. Use any flour remaining in the bag for gravy.

To Pan Fry: Starting with the larger pieces of floured chicken, brown each piece in about ¼ inch hot shortening or cooking oil. Turn as necessary to brown, using a pair of tongs to avoid piercing chicken meat.

When all chicken is browned, cover pan tightly, reduce heat, and cook slowly until meaty pieces are fork-tender — about 45 minutes, depending upon size and thickness of pieces. Chicken may be turned once or twice for even browning and cooking. Remove cover during last 5 or 10 minutes of cooking so that the skin may re crisp.

To Oven Fry: Prepare chicken as above, but do not fry. Melt ½ cup butter (or use cooking oil) in shallow baking pan in moderate (350) oven. Roll each piece of floured chicken in this fat to coat thoroughly. Then arrange pieces, skin side up and one layer deep (without crowding, but still filling pan area). Bake in moderate oven 1 to 1½ hours, or until meaty portions test fork-tender.

To Make Gravy: Remove pieces of fried chicken to hot platter and keep hot. Allowing 2 tablespoons flour for each cup of broth used, stir flour into pan drippings and stir in broth. Cook with stirring until smooth and thickened. Add chopped giblets which have been cooked separately until tender.

Or, stir into drippings a can of condensed cream of mushroom, chicken, or celery soup, and thin

to desired consistency with broth or milk.

CHICKEN BREASTS SUPREME

- 4 chicken breasts, boned, split, and skin removed
- 1/3 cup melted butter
- 4 tablespoons butter
- 1/3 cup flour
- 2 cups half and half or very rich milk
- 1 1/2 cups rich broth
- 2 pounds mushrooms, sliced and sautéed in butter (or 2 large cans sliced mushrooms sautéed)
- 8 thin slices hot ham, baked, fried or broiled
- 8 slices bread, crust trimmed and toasted

Pound chicken breasts to flatten slightly. Arrange breasts in single layer in baking pan. Pour melted butter over pieces and sprinkle lightly with salt and pepper. Add ½ cup water or broth to pan. Cover pan tightly with foil and bake in a quick moderate oven (375) until tender, about 45 minutes.

For the sauce: Melt the 4 tablespoons butter, stir in the flour and combined liquids. Cook with stirring until smooth and thickened. Stir in mushrooms and season as necessary.

To serve: Place a hot ham slice on piece of toast, top with hot chicken breast, and cover with mushroom sauce. Serves 8.

HERB STUFFED CHICKEN BREASTS

- 6 large broiler-fryer breasts, boned
- Salt and pepper
- 3/4 cup butter
- 1/4 cup finely chopped onion
- 2 tablespoons finely chopped parsley
- 1/2 teaspoon each rosemary and basil, if desired
- 1 1/2 cups prepared stuffing mix
- 1/2 cup boiling water
- 2 tablespoons finely chopped black olives

Halve the breasts. Cut through thickest part of each breast to form a pocket. Sprinkle with salt and pepper. Cook onion in ½ cup of the butter until tender but not brown. Add the parsley, herbs (if

used), and stuffing mix. Stir in boiling water and mix well.

Fill breast pockets with stuffing, securing with skewers. Place stuffed breasts on rack in shallow baking pan. Brush with remaining butter, melted. Bake in moderate (350) oven about 1 hour or until breasts test tender.

To serve, arrange on hot platter, sprinkle with chopped black olives, and serve with Supreme Sauce. Clove studded peaches serve as garnish.

For Supreme Sauce, follow sauce recipe under Chicken Breasts Supreme without adding mushrooms. Just before serving, stir in 2 egg yolks slightly beaten, ½ teaspoon paprika, and 2 teaspoons lemon juice. Do not boil after egg yolks are added.

ARROZ CON POLLO (Spanish Chicken)

- 1 broiler-fryer, cut in pieces
- 1 teaspoon Ac'cent (monosodium glutamate)
- 1/2 teaspoon salt
- 1/2 teaspoon paprika
- 1/4 cup cooking oil (olive oil preferred)
- 1 medium onion, chopped
- 1 large can tomatoes
- 1 package frozen peas, cooked
- 2 bouillon cubes
- 1/4 teaspoon saffron
- 1 1/2 cups raw rice

Sprinkle chicken with Ac'cent, salt and paprika. Brown in hot oil in skillet. Remove pieces of chicken to a baking dish with tightly fitting cover. Add onion to skillet and cook until tender, but not brown.

Drain liquid from tomatoes, add any juice from cooking of peas, and enough water to make 3 cups. Stir into skillet, scraping brown particles from bottom of pan. Add bouillon cubes, saffron, and sprinkling of salt. Bring to boil and pour over chicken in baking dish.

Sprinkle raw rice around chicken, stirring so that all rice is moist-

ened. Add tomatoes. Cover tightly and bake in moderate oven 25 minutes. Uncover, toss rice, add peas; cover and bake 10 minutes longer (rice should be tender). Serves 6.

CHICKEN DIVAN

- 1 package frozen broccoli spears OR frozen asparagus spears
- 2 cups coarsely diced chicken from a simmered broiler-fryer
- 3 tablespoons butter
- 4 tablespoons flour
- 1/2 teaspoon salt
- 1 1/4 cups chicken broth
- 1 cup evaporated milk or half and half
- 1/2 cup grated American cheese
- 1 cup buttered bread crumbs

Cook broccoli or asparagus spears just until tender, according to package directions, and drain. Place chicken in baking dish (6 x 10 inches) or a 9-inch pie plate. Arrange vegetable evenly over chicken.

Melt butter, stir in flour, salt, and combined broth and other liquid. Cook with stirring until it comes to boil. Remove from heat and stir in grated cheese until it melts. Pour over vegetable and chicken and sprinkle with buttered crumbs.

Bake in quick moderate (375) oven about 20 minutes or until heated through. Serves 4.

Note: Instead of using one large dish, you may use four individual shallow baking dishes. Distribute chicken, vegetable, sauce, and crumbs evenly in the four dishes.

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American Agriculturist, March, 1966



VISITING

with

Home Editor Augusta Chapman

IT HAS BEEN quite a while since our last visit... the reason being space, or rather a lack of it. I've missed writing this column, and now with an extra half page allotted the Home Department this month, I refuse to even consider putting anything else here!

As you know, we have had two pattern features in each issue since July 1965, and the additional half-page was included to try and find out what you readers want in the way of dress and needlework fashions. We will have the two features through May and then will decide whether to have only one in future issues or to continue with both.

It would help us in making this decision if in the next few weeks you would write and tell me how you like our patterns. Do you find them easy to use? Is there a sufficiently wide range in sizes and styles? Do you have a definite preference for printed or perforated patterns? And would you like to see both pattern features continued? We want to use our Home Department pages for material that will be enjoyable and helpful to the largest possible number of our readers.

Albany Meetings

Again this year, I went to Albany for the annual meetings of the New York State Council of Rural Women and the State Agricultural Society, and the two days were filled with worthwhile activities. Looking back now, after a few weeks have passed, I remember particularly how much I enjoyed hearing Miss Myra Woodruff, Chief of the Bureau of Child Welfare, tell about the "Head Start" child development program. Last summer more than 65,000 pre-school children participated in this program which is financed 90 percent by the Economic Opportunity Act of 1964.

Can you imagine a child of kindergarten age not answering when his name is called because he's never heard it at home? Can you imagine a five-year-old having no idea what a pencil is? Or an orange? Or a pair of glasses? It was almost impossible for me to realize that such conditions exist in our United States.

Miss Woodruff said that some of the parents had been brought up in the same kind of homes, so now we have at least second-generation children who know nothing of normal family life. The average family continually stimulates a child's desire to learn, but with practically no conversation in these disadvantaged homes, the children miss out on things we take completely for granted.

The attitude a child forms about himself is most important and

American Agriculturist, March, 1966

starts at a very young age. His personality is pretty well set in the early years. Also, recent studies indicate that a person's I.Q. is not set at birth, but can change as much as 10 to 15 points.

In "Head Start" children gain knowledge through their eyes, ears, and by touch. They learn to express themselves and experience some of the delights that come from books. Because children learn so much from each other, the 10 percent who are from outside the disadvantaged group help a great deal in teaching the other 90 percent.

It seems important, too, that "Head Start" is more than just an educational program. Each child registered last summer received a thorough physical examination. An example of the crying need in this area is that many children had no teeth at all, due to the poor diet of both mother and child. These exams were followed up with treatments and by working with the parents to eliminate physical defects.

Can We Help?

It would seem that here is a Government program worthy of our support, and you may think, as I did, "Is there anything I can do?" Myra Woodruff says we can help most by explaining to people what "Head Start" is and helping them understand why pre-kindergarten education is so important to this group of children. It might be, too, that some of our young people will have an opportunity to help, since there is a need for teen-age volunteers to assist the regular teachers.

Miss Woodruff also told Council of Rural Women members that the parents of these children need desperately some sort of recognition and to find that people in the neighborhood are friendly toward them. And isn't this true to a greater or lesser degree in each of our communities? Isn't there always a family or young person who needs the help and encouragement of being made to feel they belong and that the years ahead can be better than the past?

Have a happy March.

MOTHERS SLEEP LIGHTLY

by Eleanor Alletta Chaffee

Mothers sleep lightly. For so many years A cry so faint that it is half unheard, The frightening shape of all imagined fears Have known the comfort of a touch, a word.

Mothers sleep lightly still when smallest ones Are grown up and away. The heart holds fast The loved and lost; in dreams devotion runs To meet a shadow, starts awake at last.

And smiles and turns, saying a whispered prayer For all those still held fast in love and care.

Stockholm Landmark

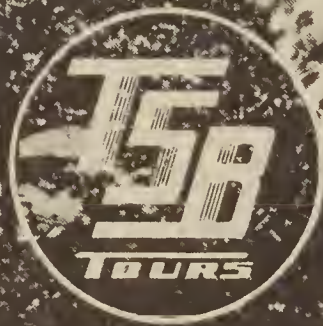


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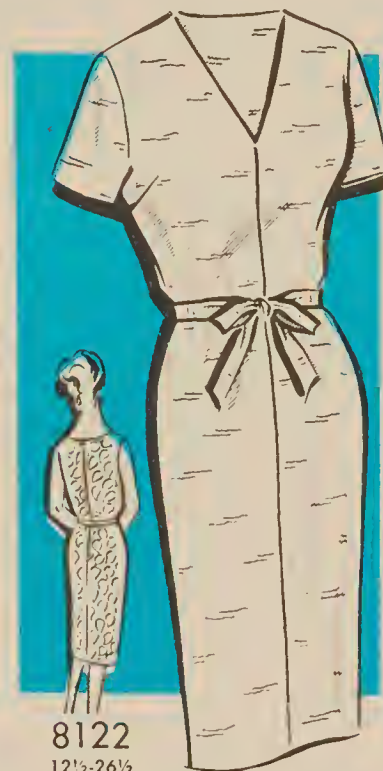


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10-20

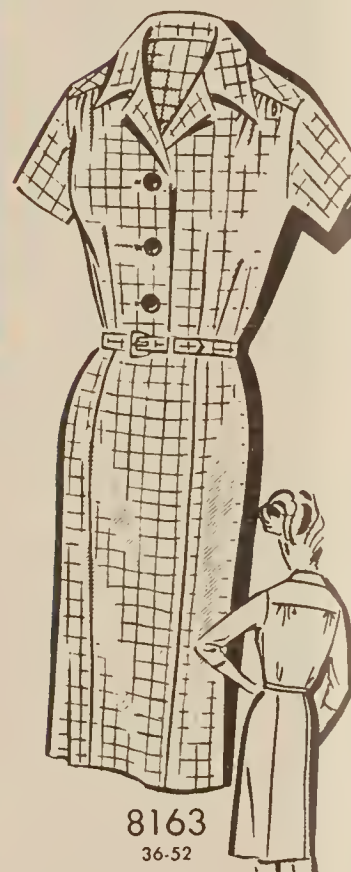
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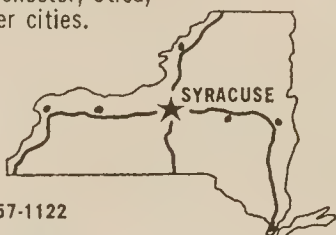
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How to CARE FOR FLORISTS' PLANTS

by Nenezin R. White

THOSE DELIGHTFUL house plants you receive as gifts can often last for more than one season in the home and perhaps grace your outdoor plantings as well. The care of these plants actually begins before you receive them, for a reliable florist buys only from recognized good growers. Plants that have been forced too fast and over-fertilized make weak, poor specimens.

The transition from greenhouse to florist to your home must also be done with care. Good practice is to "harden off" plants from tropical-atmosphered greenhouses, so the cooler air in the florist's shop and the home will not be too drastic a change. Also during winter months, plants must be well wrapped and protected from frost during these moves. If you receive a plant that promptly wilts or dies, probably it either was not hardened off or was not wrapped properly, and a good florist should stand back of his product.

Care In The Home

After unwrapping your plant, place it in a cool room, out of direct sunlight and away from drafts, radiators, or heating grills. Water lightly but frequently for a day or two and spray the foliage occasionally. This, of course, does not apply to African violets, gloxinias, and other plants that don't like wet foliage. In most instances direct sunlight will shorten the blossoming period of a plant, so try to provide indirect light for yours and put it in one of the cooler rooms of your house.

You will have to use your best judgment as to the amount of water necessary for your plants. A plant with lots of foliage and flowers is naturally going to require more water than a small one. Generally speaking, a small amount of water each day is better than a real soaking once or twice a week. Try to keep soil barely moist to the touch at all times.

A good house plant fertilizer (one soluble in water) used once every week or two will help to keep your plants in good health.

Care In The Garden

Some flowering house plants (notably, spring-flowering bulbs such as tulips, daffodils, croci, hyacinths, etc.) will be hardy in your garden. Water and feed normally while still in the house and remove flowers as they fade. It weakens plants if flowers are allowed to go to seed.

The foliage may or may not be dead when you move plants outdoors in the spring. Plant after danger of frost is past, which in our Ithaca, New York, area is about Memorial Day. Even though these plants may be naturally hardy, they have been made tender by being in the house, so treat them as tender plants the first spring. An application of organic fertilizer (such as bone meal) in the planting pocket will help the plant return to normalcy.

Paper white narcissi are not hardy inland, but further south and near the coast they may do all right when mulched for the winter. Lilies of the valley are usually hardy, but are often grown in sphagnum moss or other sterile media. Many other lilies, chrysanthemums, and azaleas which are grown as house plants can be moved outdoors; ask your grower or nurseryman about particular varieties in your area. Most florist azaleas are not hardy at Ithaca, but many people winter them over with good protection; this is also true of hydrangeas.

Tender Loving Care Needed

Poinsettias, cyclamen, cineraria, and Christmas cacti are not hardy year-round in the Northeast, but many people keep them year after year by putting them outside for the summer, in a protected spot shielded from intense sun and

(Continued on page 61)



The transparent plastic bag tied over this foliage plant will keep it in good shape for a week without being watered.

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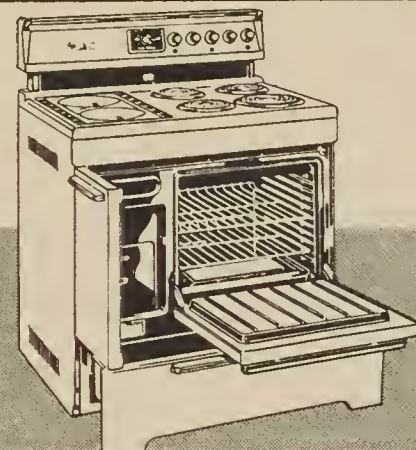
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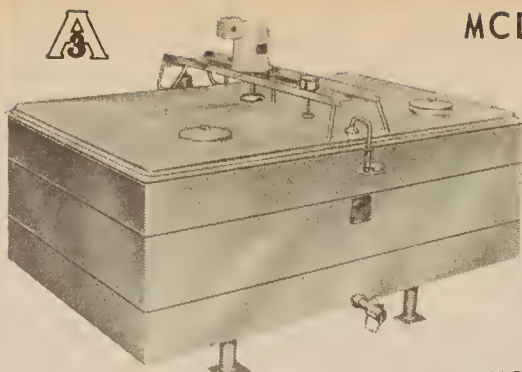
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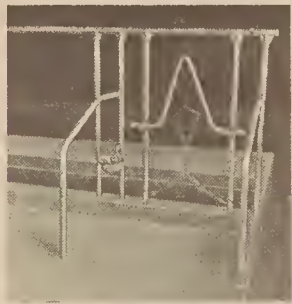
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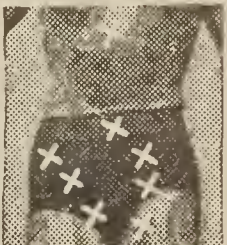
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DO YOU HAVE...

A recipe for "Sugar Speck," a hard-type candy that is pulled and then cut in pieces? This request comes from Mrs. J. J. Smith, Palmyra, New York.

A recipe for Apple Butter made with honey? Mrs. E. Hein, 2137 Highway 9, Lakewood, N. J. 08701 asks that you share it with her if you do.

Last December we printed a request from Mrs. Emmy Lillis of Oxford, Conn., for a bread recipe that raises overnight and is baked in the morning. Late in January, Mrs. Lillis wrote me she had received 70 recipes and 30 requests to share the information with other women.

Mrs. Lillis lives on a farm (since her first letter to us, she has moved to Morris, Conn.) and has four children, ages 12, 8, 5, and 2. She has asked us to help pass along this information to you readers. Following is the recipe Mrs. Lillis likes best of the several she has tried.

WHITE BREAD

(Overnight Method)

- 1 cake or 1 pkg. yeast
- 2 quarts water or milk
- 2 tablespoons sugar
- 2 tablespoons melted butter or lard
- 6 quarts sifted flour
- 2 1/2 tablespoons salt

Dissolve yeast and sugar in the water or milk. This should be lukewarm in winter and cool in summer. *American Agriculturist, March, 1966*

mer. Add lard or butter, half the flour, and the salt. Beat until smooth, then add balance of flour, or enough to make moderately firm dough. Knead until smooth and elastic.

Place in well greased bowl and cover. Set to rise in a warm place overnight or for about 9 hours. In the morning, punch down, shape into loaves and place in well greased pans (have them about half full). Cover and let rise until light or until loaves have doubled in bulk, about 1 1/2 hours. Bake in moderate oven, 45 to 60 minutes. Bread will sound slightly hollow when tapped. While hot, brush tops with butter. Makes 6 loaves.

Notes: Substitute milk for water if a richer bread is desired; lard makes whiter bread than butter.

Do not let rise in too warm a room or dough may sour and don't let it rise more than 9 hours. Don't skimp on the kneading.

A recipe for making "Half Sour" Pickles? This request comes from Roland R. Camire, 176 Fourth St., Leominster, Mass., and he says "These pickles are very popular with Jewish folks, and they keep them in barrels."

Plants

(Continued from page 59)

wind. Tender azaleas and hydrangeas can be held over the same way, but all will require judicious pruning, fertilizing, and tender loving care.

Many people will tell you this is impossible, but it isn't. In and around Mecklenburg, New York, where our nursery is located, I have seen people hold these plants over. One outstanding example is a friend of ours who has a beautiful cyclamen plant that he has kept for twelve years. Each winter it is as pretty as any florist plant I have ever seen.

Foliage plants usually get a new lease on life by being outdoors for the summer. Partial sun, shelter from wind, an occasional watering when necessary, and small amounts of house plant fertilizer are usually beneficial during this period of heavy growth.

Some people leave the pots on top of the ground; others remove plants from the containers for the summer. If plants are in adequate-size clay pots, I like to plunge the containers into the soil; otherwise, I take them from the containers, plant in the soil, and re-pot in larger containers in the fall.

Helpful Hints

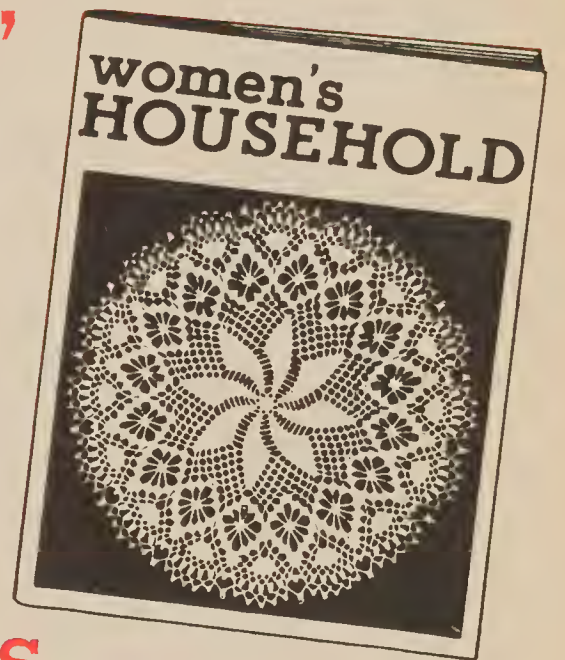
If you are going to be away from home for a few days (up to a week), water your house plants well and make sure they are not in direct sunlight. Then cover them with a large transparent plastic bag, tying it snugly around the container. This will hold the moisture and keep the plants in good condition until your return.

There are many good books and articles on the year-round culture and care of house plants. Don't be afraid to read and to swap information with other people, for that's the way good growers are made.

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- CHILDREN'S BRIGHT SAYINGS
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- ALL ABOUT FLOWERS
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ED EASTMAN'S PAGE

WHAT INFLATION DOES TO YOU

You hear much talk about the evils of inflation, but it takes a personal experience to realize how inflation is robbing us.

During the second World War Belle and I, yielding to all the pressure about being patriotic, took our hard-earned savings and invested them in war bonds. What happened?

The day before this was written, I cashed the bonds. Not only had inflation more than wiped out the increased value of the bonds... but the government added insult to injury by forcing me to pay income taxes on the very small interest received on the bonds after they had come due.

In just the one month of June last year any money invested at 6 percent lost all it earned in buying power because of inflation. During the same month of June... and in every month... all pensions, wages, dividends and other income shrunk accordingly. Millions of people who have worked hard for a lifetime to save for their old age have lost or are rapidly losing their savings because of inflation and taxes. Chiefly because of inflation, the

buying power of your dollar is growing smaller every day. What \$10.00 would buy in 1940 takes \$22.58 today; what \$10.00 would buy in 1959 takes \$11.20 today; and with the new socialistic government schemes we haven't seen the worst yet.

What are the causes of runaway inflation? One is the high cost of war in Viet Nam. That apparently can't be helped. A second cause of inflation which has been going on long before the Viet Nam war is the tremendous spending of our socialistic government. Some of that can be helped. You may think that the costly enterprises of our federal government are all to the good. But money does not grow on trees. All the government spending must be paid for.

With rapid-firing inflation and mounting taxes, I wonder what you will think ten years from now... and I wonder what our children will think.

Let us not be fooled by the dreamers, and the glowing promises of the promised land by the politicians. Life is just not that way. Let us resist unnecessary spending before it is too late.

BRINGS BACK

HAPPY MEMORIES

Nothing I have ever done has given me more satisfaction than my book "Journey to Day Before Yesterday," because it helps readers to remember and relive so many happy times in their lives.

Every mail brings letters like these:

"We are enjoying your book, 'Journey to Day Before Yesterday,' and are reading it out loud as we sit before the fireplace." — Elmira, N.Y.

"The book stays bright from start to end, and sparkles with chuckles and laughs." — Indian Rocks, Fla.

"Yours is one of the loveliest books we own, different in size and shape, and so beautifully illustrated." — Akron, Ohio

"Your book had particular interest for me because we have two boys in their late teens, and pervading each of your chapters there is evidenced your personal tolerance with and understanding of the younger generation. On this

score I shall 'take a page' from your book and benefit from it." — Sag Harbor, N.Y.

"Your book is a gem. Thanks for helping me to relive many happy memories." — Trenton, N.J.

"This beautifully-printed, bound and illustrated book will be mailed to you postpaid on receipt of your check or money order for \$5.95. (New York residents add 12 cents for state tax). Write to American Agriculturist, Department Book, Box 370, Ithaca, N.Y.

CAN YOU

FORETELL THE WEATHER?

Because weather is so important to them, most countrymen have learned to be good weather prophets.

Here are a few weather signs that farmers have relied on since "Pa got Ma." You will think of more.

The first thing a farmer does on his way to do the morning chores is to cock a speculative eye at the weather vane on the

barn to note wind direction, and then at sky and clouds.

Wind direction is one of the best signs for telling the weather. An elderly man who used to work for me on the farm always complained that his corns and "jints" began to hum when the wind was in the south or east.

"A coming storm your shooting corns presage

And aches will throb

Your hollow tooth will rage."

North and northwest winds are a sign of clear weather and low humidity, giving most of us a lift of the spirit and the feeling that we can — as Mother used to say — "set the North River afire." So, it's like the old jingle says:

"When the wind is in the northwest

The weather is at its best.

When the wind is in the east, It's good for neither man nor beast."

Another fairly accurate wind weather sign is expressed in this old jingle:

"When the wind is in the south The rain is in his mouth:

When the smoke goes west

Good weather is past;

When the smoke goes east

Good weather is next."

Next time we will visit about the different kinds of clouds and their effect on the weather. In the meantime, what weather signs do you go by?

WHY TOM SUCCEEDED

I once had two farmer friends of whom I was very fond, but they were as different in the way they did their farm work as day is from night.

Tom operated a big farm mostly alone, but he always seemed to be ahead of his work and always had time for a visit. Ben, whose farm and work was no larger than Tom's, was always behind. Tom made money; Ben didn't.

I was a teacher of agriculture then, so I took time to find out why the two men differed so in



their farming. The reason was not hard to find. Tom had a well-organized but flexible plan for all his main operations; Ben didn't. It was as simple as that.

When spring came Tom was ready for it. His tools were repair-

ed and ready to go, seed and fertilizer were on hand. Much of the plowing had been done the fall before.

Ben worked even harder and longer hours than Tom, but he never was ready for the job when it was time to do it; he seldom did any planning ahead.

Both of these good friends are gone now but I often think how much more Tom got out of life than Ben did.

THE NICEST

HOUSE PLANT

In a little greenhouse on our farm a few years ago we had a rose geranium that was over ten feet tall. It was just wonderful to open the door and be greeted with the subtle aroma of that geranium, which pervaded the whole greenhouse.

Mother's big bay window in our sitting room at home when I was a boy was always filled with thrifty house plants, many of them geraniums. She had several kinds, but I liked best those with red blossoms.

In your spring plans I suggest that you arrange for plenty of geraniums. You can buy the plants, or have some fun growing them from seed. There are several nurseries that specialize in geraniums, three of which are:

Wilson Brothers, Roachdale, Indiana; Oakhurst Gardens, P.O. 444, Arcadia, California; and George W. Park Seed Co., Greenwood, South Carolina 29647.

A kind heart is a fountain of gladness, making everything in its vicinity freshen into smiles. — Washington Irving

EASTMAN'S CHESTNUT

One of the many nice things about the Scottish people is their very keen appreciation of humor, including the perennial jokes about their being close with money. Incidentally, I think we would be better off if all of us, including the government, were more like the Scotsman in this story.

"Pat found himself hard up, and without a flake of tobacco in his pouch. Suddenly he spied a very evident Scotsman coming along.

The Irishman hesitated to ask a perfect stranger for a pipeful of tobacco, but a brilliant thought struck him. He approached the Scot and asked:

"Moight I trouble ye for the loan of a match?"

"Ay!" And the Scotsman gave him one... just one.

"Faith now..." exclaimed the artful Irishman, "if I haven't come out without any 'baccy, and all the shops are shut!"

"Ah!" said the Scot, reaching out his hand... "in that case ye'll no' be needing that match!"

American Agriculturist, March, 1966



SERVICE BUREAU

Unwanted

(Continued from page 16)

for an installation which from the standpoint of protection from lightning was practically worthless. For a good installation meeting the requirements of the Underwriters' Laboratories this price would not

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TIRE CHAINS

TIRE CHAINS for passenger cars, farm tractors, trucks, graders, Heavy duty — Low prices — Prompt shipment. Write for complete tire chain catalog to: Southern Parts Corporation, 1268 N. 7th, Memphis, Tenn.

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TOBACCO! Homespun Smoking - Chewing. Samples 10¢. Fred Stoker, Dresden, Tennessee.

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I BUY LEADED GLASS light domes and leaded glass table lamps. Address to read A. G. Carlsen, RR #1, Box 48, Colt's Neck, N. J.

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WANT: Pre-1935 Child's sidewalk pedal car. Hurlburt, 27 West, Greenfield, Mass.

HAVE YOU A BUSHEL of open pollinated flint corn for spring seeding. Interested in high altitude variety. George F. Dillman, Otis, Mass.

LOCUST POST 7' LONG, also red cedar. Write to Darrigo Fence Co., Lakeside Road, Newburgh, N. Y.

USED MILK-O-METER, for Morris County DHIA, Court House, Morristown, N. J.

WOMEN'S INTEREST

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WALLPAPER SALE: FINAL clearance all 1965 patterns. Write for your Free catalog at once. Sensational savings. We pay postage. Burlington Trading Post, 1800 Burlington, North Kansas City, Mo.

WALLPAPER — SAVE HALF or more. Big 1965-66 catalog—118 selections 18¢-69¢ single roll. Send 10¢ catalog mailing. Mutual Wallpaper, Dept. R, 228 West Market, Louisville, Ky. 40202.

WEAVE RUGS—Make Good Profits—No experience necessary! Free Catalog, sample card, and low prices on carpet warp, rug filler, looms, parts, inexpensive beam counter. If you have loom—advise make, weaving width please. Or. Rug Company, Dept. 2614, Lima, Ohio.

DESERT FLOWERS, ROADRUNNERS, Note-cards, 12 Assorted, \$1.50. Brochure. Artist Henry Mockel, Box 726, Twenty Nine Palms, California.

NEW MONEY MAKER for your church or club! Sell our famous Holland Imported Flower Bulbs now! Hybrid Gladiolus and Dahlias! Beautifully packaged! Guaranteed! 40% profit! No money needed! Free details! Dutch Mill Bulb Importers, Dept. 252, Mount Gretna, Pennsylvania 17064.

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RAISE \$50 for your Church or Group with Happiness Napkins, 5 colorful designs, with wonderful sayings. Have 10 members each sell twenty 50¢ packages. Keep \$50. for your treasury, send me \$50. Send for details. Free Sample. Anna Wade, Dept. 9CD, Lynchburg, Va. 24505.

FREE NEEDLECRAFT CATALOG! Embroidery, Knitting, New Ideas! Merribee, Dept. 710, 1001 Foch, Fort Worth, Texas 76107.

FLOWERS

WILDFLOWERS — Free Price List. Write, Savage Gardens, Box 163, McMinnville, Tennessee 37110.

have been much out of line, and she would have had protection.

9 — HEALTH QUACKERY.

This probably tops the list of consumer schemes in terms of total financial toll. Government agencies have estimated that some 25 million Americans are fleeced of \$1 billion or more each year in return for worthless drugs, gadgets and health foods. Elderly persons, particularly, have been ruthlessly victimized in such diverse areas as arthritis, cancer, nutrition, health devices, and phony spas and clinics.

10 — WORK-AT-HOME SCHEMES.

We probably receive more inquiries about homework schemes than any other. By inquiring first before answering such "help wanted" ads, we feel sure many subscribers have saved time and money.

We do not recommend any of these companies that offer to furnish work to do at home but ask for money first. They are only interested in the money they can collect for a little information or a few materials; they never offer regular, salaried employment.

So Beware!

Spring is approaching again, along with the warm weather hoaxes, so we offer the following advice:

— Always take time to check on the reliability of a firm. Do not be hurried into reaching a decision.

— Do not sign anything without reading it very carefully. Make sure there are no blank spaces, and check credit charges as well as price. Everything printed on the paper you sign is part of the contract. Any verbal promise which is not printed on the paper is not part of the contract and is not binding on the company. If you are in any doubt, consult an attorney.

— It is always wise to consult the experts concerning most questions. If you have a question about an investment offering, talk with your local banker or stock broker. If you have a medical problem, take it to your doctor; and a legal problem to your lawyer. You will save money in the long run.

ADDRESSES WANTED

Descendants of the Hilton family, for whom Hiltonville in the town of Birdsall, Allegany County, was named.

* * *

William Milks, whose wife's name was Maud, and who formerly lived in Minneapolis, Minnesota.

* * *

Evelyn Marshall Lavalley and daughter, Dian, last seen six years ago leaving Norwood, Massachusetts.



Local agent Charles Nalbhone of Jamestown, N.Y. delivers check of \$1,700.00 to Caroline Price, widow of Mervin A. Price, Saegertown, Pa.

Mr. Price, at his off the farm job, was walking on some overhead beams. He slipped, fell eight feet to the concrete floor below. Severe head injuries caused his death. Mrs. Price writes as follows:

"I sincerely thank North American Accident Ins. Co. for its generous settlement on my husband's death. Because we continuously kept our policy in force it increased our benefits \$700.00. I strongly recommend your protection and encourage those who have it to keep it renewed."

Caroline Price

"IT INCREASED OUR BENEFITS \$700.00"

Keep Your Policies Renewed

OTHER BENEFITS PAID

Clarence VanWormer, Altamont, N.Y.	\$ 231.42	Alfred Case, Jr., LaFayette, N.Y.	\$ 784.65
Auto acc.—sprained back		Auto acc.—multiple lacerations	
Rockwell L. Stafford, Black Creek, N.Y.	135.00	Albert Reed, Clifton Springs, N.Y.	258.34
Kicked by cow—injured leg		Fell from roof—broke collarbone	
Fred Kruenberg, Corbetsville, N.Y.	626.06	John Knoerzer, Middletown, N.Y.	1000.00
Hit by bale of hay—inj. back, ribs		Burning trash—burns of leg	
Earl L. Meyer, E. Randolph, N.Y.	455.73	Francis Towles, Pulaski, N.Y.	233.22
Fell down stairs—inj. hip		Fell—broke ankle	
Gladys H. Smith, Farmersville Station	167.14	James Trippany, Chase Mills, N.Y.	740.00
Pushed by cow—inj. leg, shoulder, back		Auto acc.—injured hip, head	
Irving Lees, Cato, N.Y.	1001.80	Joseph Frycek, Alpine, N.Y.	311.51
Fell from ladder—broke ribs, inj. shoulder		Truck acc.—inj. chest, scalp	
David Duggan, Moravia, N.Y.	324.62	Charles Higgins, Jr., Bath, N.Y.	109.57
Caught finger in field chopper		Kicked by steer—inj. back and hip	
Marion Burris, South Dayton, N.Y.	307.98	Vernon F. Wells, Riverhead, N.Y.	114.00
Fell on kitchen floor—broke arm		Hit by potato bin loader—cut face	
Dolores Wilcox, Horseheads, N.Y.	177.14	Irene Semaschuk, Riverhead, N.Y.	768.97
Fell off toboggan—broke leg		Auto acc.—inj. chest, broke collarbone	
Robert Grow, Sherburne, N.Y.	260.00	Vera Semaschuk, Riverhead, N.Y.	741.17
Kicked by cow—inj. ankle		Auto acc.—multiple injuries	
Loretta C. Boyd, Saranac, N.Y.	196.06	Betty Vernoy, Woodbourne, N.Y.	104.28
Slipped getting off tractor—inj. back		Tripped over paving—broke leg	
Lydia Strong, Homer, N.Y.	672.37	William Needham, Newark Valley, N.Y.	164.28
Tripped and fell—broke knee		Crushed by cow—broke rib	
Lawrence Riddell, Hobart, N.Y.	110.44	Katherine M. Wood, Groton, N.Y.	666.50
Caught in blower—inj. hand		Thrown by cow—broke arm	
John R. Gernatt, Collins Center, N.Y.	230.22	Oliver G. Brown, Palmyra, N.Y.	1364.69
Stepped on spike—puncture wound		Fell off ladder—broke both wrists	
Arthur D. White, North Bangor, N.Y.	351.40	Joseph O'Connor, Marion, N.Y.	105.72
Kicked by cow—injured knee		Oxygen tank fell on foot	
Floyd McMahon, Mohawk, N.Y.	350.00	Cecil Knapp, Columbia Cross Rds., Pa.	322.81
Hit by car—broke leg, ribs		Caught in tractor—broke hand	
Carl Bates, Lorraine, N.Y.	430.00	Ford Preston, Elkland, Pa.	226.50
Fell through roof—inj. shoulder		Caught in corn picker—broke leg	
Lyle Hall, Philadelphia, N.Y.	185.00	Kenneth P. Hanas, Waterford, Pa.	112.86
Kicked by cow—broke rib		Pushed by cow—broke foot	
Lucille Farney, Croghan, N.Y.	283.96	Leo McGraw, Lakewood, Pa.	106.43
Stepped in hole—broke foot		Hit by log—injured leg	
Pauline Barnhardt, Honeoye Falls, N.Y.	232.50	Robert J. Holsten, Pennington, N.J.	728.16
Fell from ladder—broke ankle		Caught in baler—inj. arm	
Lorenzo Marshall, Morrisville, N.Y.	166.43	Joseph Rotter, Englishtown, N.J.	311.00
Thrown from tractor—inj. knee		Spreader fell on foot—broke foot	
Carl J. Nasse, Jr., Canajoharie, N.Y.	375.00	Martha Little, Shelburne Falls, Mass.	254.86
Fell through hay loft—broke ribs		Auto acc.—facial cuts	
Joseph Hernigle, Fultonville, N.Y.	1620.00	Ralph H. Esancy, Sr., Freeport, Maine	340.00
Knocked off freight car—broke leg		Auto acc.—broken leg, knee, jaw	
Gerald F. Walck, Sanborn, N.Y.	1328.56	Marie A. Newcomb, Croyden, N.H.	236.00
Truck acc.—broke shoulder, ribs, spine		Hit by cow—injured teeth	
Millie M. Eaton, Vernon Center, N.Y.	119.14	Bertha Richardson, Saxton's River, Vt.	249.20
Slipped and fell—broke leg		Fell—broke wrist	

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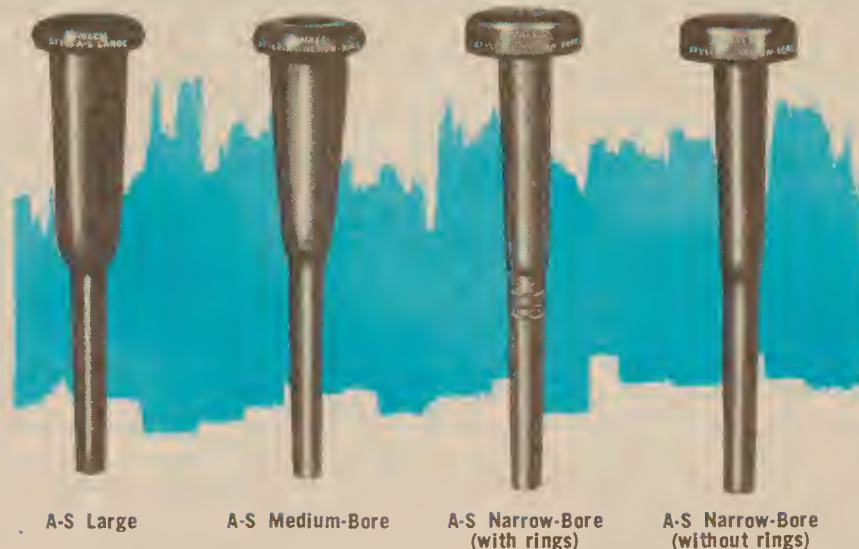
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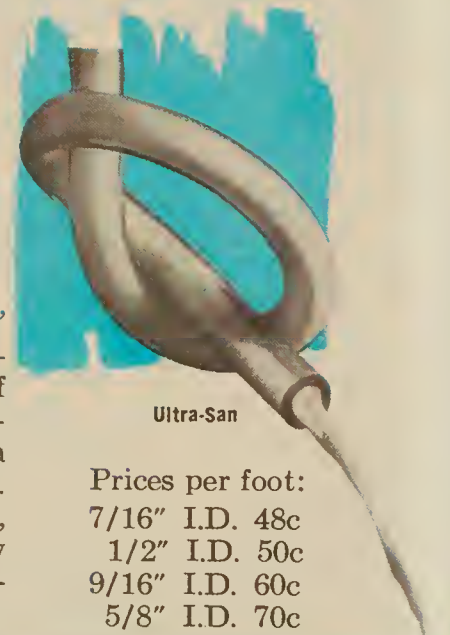


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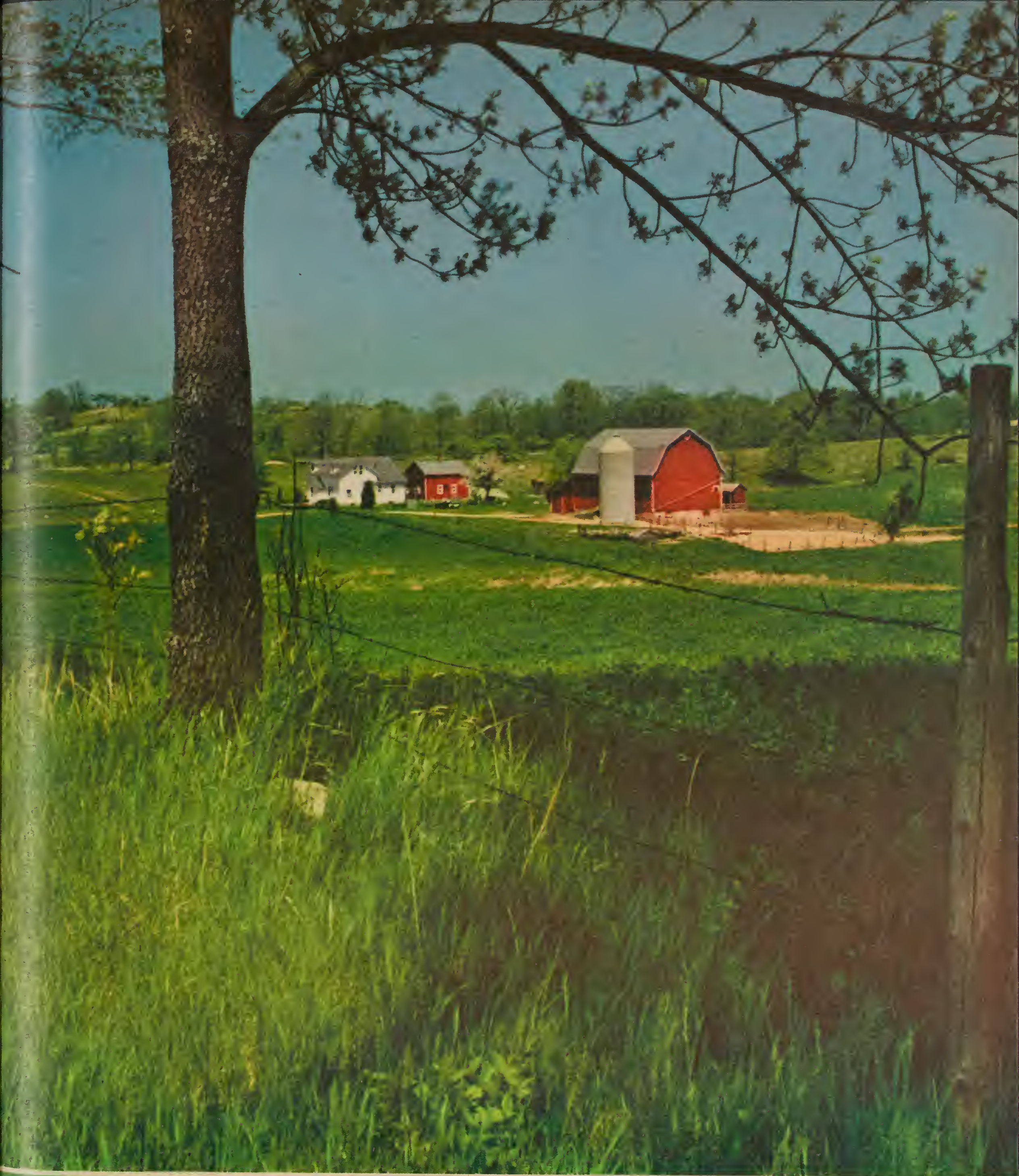
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APRIL 1966



American Agriculturist
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RURAL NEW YORKER

FOR THE NORTHEAST FARMER



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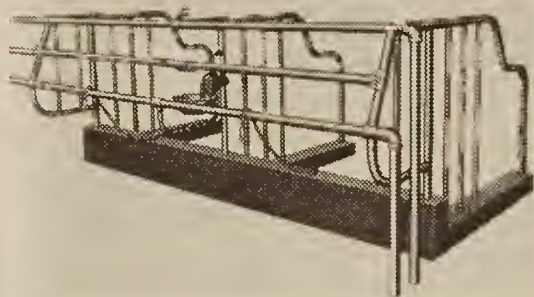
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American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 163, No. 4

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EDITORIALS

by GORDON CONKLIN



SEARCH FOR KNOWLEDGE

The records show that it took 25 years between the development of hybrid corn and the time when it almost completely replaced open-pollinated varieties. Fifteen years elapsed between the discovery of the first vitamin and the time this information was really put to use. And the research that laid the foundations for these discoveries began long before the discoveries themselves, for the temple of new knowledge is built brick by brick.

Research must be a continual process in order to have an occasional breakthrough. Many a dry hole is sunk into the soil of possibility before pay dirt is found.

Some people argue that agricultural research should be severely restricted, or even terminated, because of certain food and fiber surpluses. This is like saying we should burn the barn to collect the insurance . . . it might temporarily help our financial problems, but at the same time impair our future possibilities to produce.

Never forget that surpluses are the result of short-run economic conditions or political tinkering . . . research looks to the unlocking of abundant new dimensions in the long run. For man to turn away from his inborn thirst for greater understanding would be to deny his humanity, as well as consign to the ash heap his dreams of a better tomorrow.

CHEAP POLICY

Americans spent an all-time low of 18 percent of their disposable income for food in 1965 . . . this compares with 24 percent in 1933. Prices received by farmers on January 15 this year averaged 263 percent of those received in 1910-14, but prices paid on that date averaged 327 percent of what they paid in the same base period. Prices received have gone up . . . but not nearly as much as prices farmers pay.

Statistics can get awfully boring, so I'll not recite a host of other figures that show that farmers are on the lower portion of the economic totem pole compared to many other occupational groups. There seems to be a "cheap food complex" at the politically-sensitive USDA, for every announcement of farm programs is carefully accompanied by the disclaimer that "this will not increase prices consumers pay." Nonfarm consumers, after all, have 93 percent of the votes; farmers have only 7 percent.

President Johnson has asked Congress, through his "Message on Food for Freedom," to consider using more fully our magnificent agricultural potential to expand programs for helping to feed the people of underdeveloped nations. We are finally beginning to realize that food may be more potent than guns in the arena of international politics.

There are many qualifications that need to be met by foreign countries if such a program is to be truly constructive on behalf of nations unable to feed their "exploding populations." However, there is another qualification that should be made on behalf of farmers in the United States . . . and because of the figures I mentioned earlier.

Feeding hungry people can easily be made an emotional mission, on behalf of which farmers may be asked to continue to produce "cheap food" . . . for overseas as well as domestic consumption. If they protest, they will be accused of being un-Christian, selfish, isolationist . . . or even communist.

For more years than I like to remember, agricultural surpluses have hung over the market in this country . . . exerting a general downward effect on food prices, and lulling consumers into taking an abundant food supply for granted. If farmers are to be asked to produce on behalf of hungry people overseas, and thereby supply Uncle Sam with a constructive weapon for the entire nation's enlightened self interest . . . then let's expect domestic food prices to move up where they belong. Nuts to this old jazz that "the farmer must do his patriotic duty by his country, and in addition help feed the world" . . . at the same time labor unions tell LBJ what he can do with wage increase guidelines, and move to increase farmers' production costs!

It's bad enough to have a "cheap food complex" for this country . . . let's not extend it to the whole world!

MOONLIGHTING

The average investment in real estate, equipment, and livestock per farm worker in the United States is reported as \$27,000 . . . and the percentage of the total represented by equipment has zoomed upward over the past two decades. Equipment, along with the fuels and electrical power that spin it, have transformed farming.

The other side of the coin is that equipment overhead has become a terrific cost item in the farmer's budget. So many machines are used for such a short time, then stand idle the rest of the year . . . they may become obsolete before they are worn out!

As I travel the Northeast in the spring I see a few lighted tractors being used to plow and plant at night. In the fall, I see corn pickers operating on some farms in the wee hours before the dawn.

Following the example of these farmers who are getting maximum use from equipment, I think all farmers should seriously consider the cost-cutting possibilities of operating field equipment around the clock. Machines of smaller capacity . . . and therefore with a lower initial cost . . . could handle the job if worked 18 or 20 hours a day. Furthermore, work would get done on time . . . rather than have late-planted corn, or silage left in muddy fields. Corn, of course, lends itself to such a schedule far better than hay.

Farmers with two or more people in the work force could work out a "two shift" schedule on field operations. Industry has long been able to lower overhead costs by having two, or even three, shifts operating costly machines and thereby lowering overhead costs per unit of production. Remember that some overhead costs . . . in industry and on the farm . . . are hidden, including interest and insurance.

Farming is a business in which just the right time to get something done comes all of a sudden. Oats are ready to ensile, for instance, at exactly 2 p.m. on a Sunday afternoon . . . and they're past the best time at 2 p.m. on the next Monday afternoon. It would boost corn yields enormously over the Northeast if every acre of corn could go into the ground on the first day the ground was right.

So, we have a business with high peak loads of work to be done; it is also a business of only seasonal need for specialized equipment. I think one answer to the problems posed by these characteristics is to move to-

ward 'round-the-clock use of equipment when Mother Nature blows the bugle call to action.

Also, isn't there a possibility that farmers with small work forces at home could profitably hire men from industry or service professions for short periods? Pay them the wages required . . . maybe \$3 to \$4 per hour . . . and get top performers who learn fast and have a sense of responsibility. Some farmers have done this and found it paid off for critical peak workload periods like planting corn. Part of good farm management would be to sort out those really critical periods . . . the few where expensive part-time help would really pay off.

PAP

Once upon a time, in the far-off land of Softalia, lived a man named Ima Goldbrick. He enjoyed life very much indeed, living on relief and fathering children in between periods of loafing and fishing.

One day he received a letter from a relative overseas, proposing that he come to visit him . . . and offering to pay Ima's costs of travel. Ima took the next available boat.

Alas! The ship was wrecked by a howling storm. Ima, the only survivor, was cast ashore on a deserted island, along with the piece of wreckage to which he clung. He lay for a long time in the sand, until hunger pangs stirred him toward exploration of the island.

He hardly knew how to begin . . . all his life PAP (Poverty Alleviation Program) had provided free food and a monthly check for the Goldbrick family. Ima often had said, "We have our rights! We deserve just as much as anyone else!"

PAP had been wonderful . . . it had provided everything! The sex education program was administered by PAP (Purity After Puberty), physical education matters were run by PAP (Push And Pull); medical care taken care of by PAP (Physicians, Anesthesia, Pills); even burial arrangements were handled by PAP (Put Away Plan). Special public works programs also came under the jurisdiction of PAP (Putter Around People). Of course, some of the people so foolish as to be taxpayers didn't like one branch of PAP (Pay And Pay)!

After two days of aimless wandering over the island, our hero arrived at the top of a high cliff overlooking the beach. He was desperate now . . . so hungry he could have eaten even the free canned spinach from PAP that he used to throw away. Overcome with despair, he lurched forward to hurl himself from the cliff.

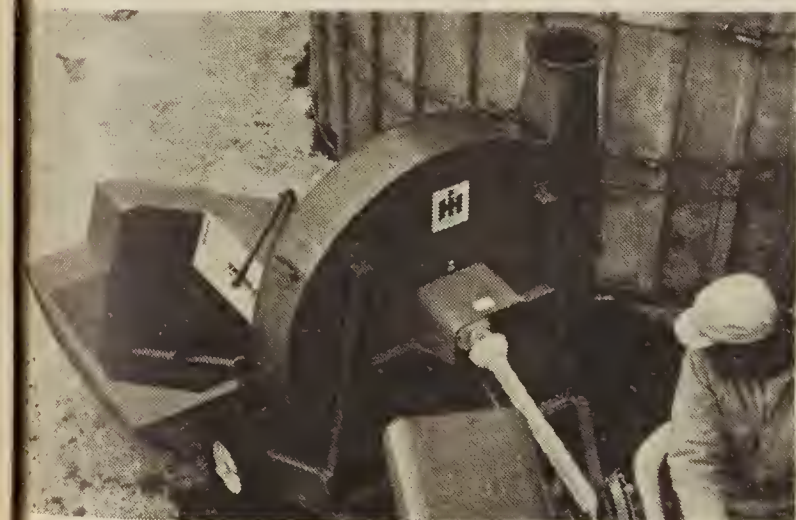
But suddenly he remembered that PAP (Population Adjustment Program) was not available. Back in Softalia, PAP had two programs to help despondent people. One was the Long Happy Hour whereby people could sleep for five years, thereby waiting blissfully for the legislative authorization of more generous public assistance programs. The other program bore the somewhat sinister name of The Deep Six.

Ima sighed . . . without PAP he could not proceed along these lines, either. Awful as it was, he must consider the thought of work in order to live! He knew from reading pocket-book novels that he could build a shelter and find food on this tropical isle, but how he missed PAP! There were no neighbors to pay his bills now or provide the guarantees of his "rights." Ima shivered as the truth dawned, and he struggled to shut from his mind the idea that rights demand responsibilities . . . that a person doesn't deserve anything merely because he was born.

Sadly, he turned to the tasks at hand. He didn't know it then, but the day would come when his plantation carved from the wilderness would be given an appropriate name befitting his new assessment of himself, and the endless flow of his effort . . . "Pride And Plenty."



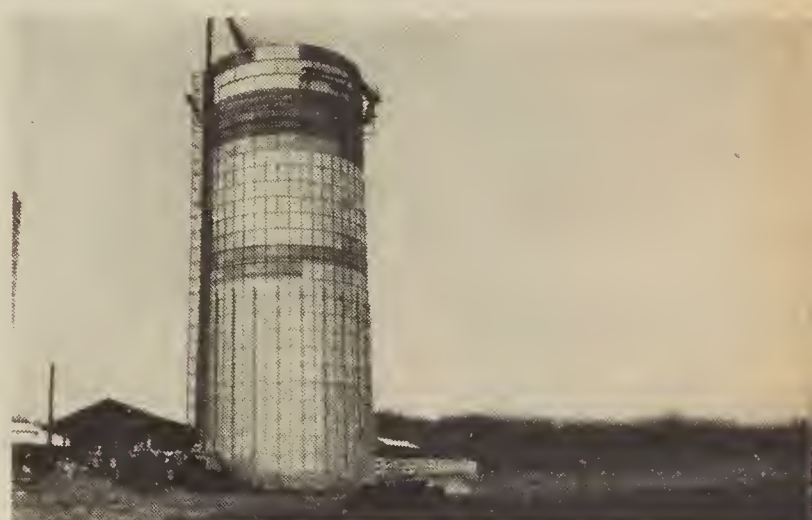
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that work**

How to MEND YOUR FENCES

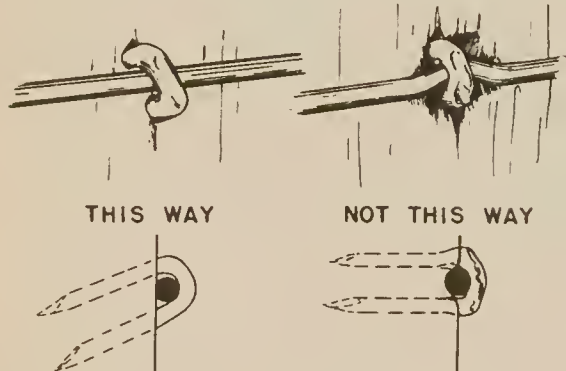
Illustrations: Republic Steel and Southern Assoc. for Agr. Eng. & Voc. Agr.

Every farmer having livestock knows the value of a good fence. Without fences there could be no control over the breeding, feeding and management of animals... no protection for crops.

Planning is important. There are right and wrong ways... good and poor ways... to erect a fence. Agricultural engineers have found that, in general, poor fencing is the result of too shallow-set end posts, weak splicing, buckled brace bars, sagging wires, or drawing the fence too taut when stretching it.

It's a good idea to contact the Plan Services Department of your state college of agriculture. They have complete plans for farm building arrangement and construction. The following are among the recommendations developed by agricultural colleges and wire manufacturers:

1. The holding strength of end posts can be doubled by increasing the depth of set from 30 to 42 inches.
2. Long, stiff bars create a stronger end brace.
3. Double-span ends or corners are much stronger and longer-lasting than single end span ends or corners. Double-span ends with diagonal bracing make very strong wood post ends.
4. Steel end or corner assemblies set in concrete make the strongest ends or corners that can be made.
5. Posts set closer together than normal practice give more support... add strength to the fence.
6. Steel line posts can be set much faster and easier than wood posts; they also eliminate post-hole digging.
7. Staples should be driven in at an angle and only three-quarters



of their length, to permit the wire to move freely during temperature changes or under other stress.

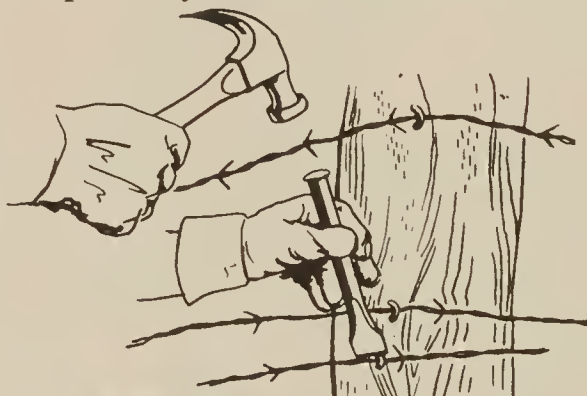
8. Fence should not be stretched around a corner post. Instead, stretch, cut and attach to the corner post, then repeat for the new section. Wrap wire ends around post and back on themselves... staples won't take the strain.

9. New fence should never be stretched under old barbed wire.

Old Fence

In removing old fence, use a

staple-puller, wrecking bar, or cold chisel to release the old fence wire. Wear heavy gauntlet-type gloves to protect your hands.



A "V" jack, made of three equal lengths of 2 x 4's bolted together, makes it easy to remove old posts quickly. Be sure to overlap the ends to form a "V" groove to carry the pulling chain.

Another method of easy post-pulling is to use a discarded corn planter or auto wheel. The concave rim provides a track for the pulling chain. Be sure to pick up nails, staples and bits of wire to keep livestock from getting them.

Clear the Line

Once the old fence is taken care of, clear the fence line of brush, loose rocks, trees and tall grass. It will not only improve the appearance but save time in setting the new fence. Don't leave trees in place of posts; they increase danger from lightning, the fence damages the trees, and vice versa.

Woven-wire fencing for general farm use comes in 20-rod rolls; barbed wire of all sizes comes in 80-rod rolls.

Stretching a barbed wire along the ground from one end of the fence line to the other is the easiest way to align fence posts. Neither steel nor wood posts should be set more than a rod apart. On rolling or rough ground closer spacing may be necessary, perhaps 10 to 12 feet apart.

Driving Fence Posts



Welding handles on your post driver will give you a better grip, make post driving an easier job.

When using steel posts they should be driven so the top of the anchor plate is between four and six inches below the soil surface. It is advisable to drive posts with the face of the post facing the pasture or field to be enclosed.

Wood posts should be set about 30 inches deep. Fill and tamp the soil well, alternating steel and wood posts for stock protection against lightning.

Woven Wire

Never use a tractor or truck to stretch a fence. Do not overstretch. Temperature changes of 50 degrees can increase the pull up to 900 pounds, or about 50 percent, on 20 rods. Over-stretching can ruin a perfectly good, well-set end structure, and result in fence sags... a maintenance problem right from the start.

Normally, the applied stretching force should be just enough to remove between one-third and one-half of the tension curves on woven fence... more in winter, less in summer.

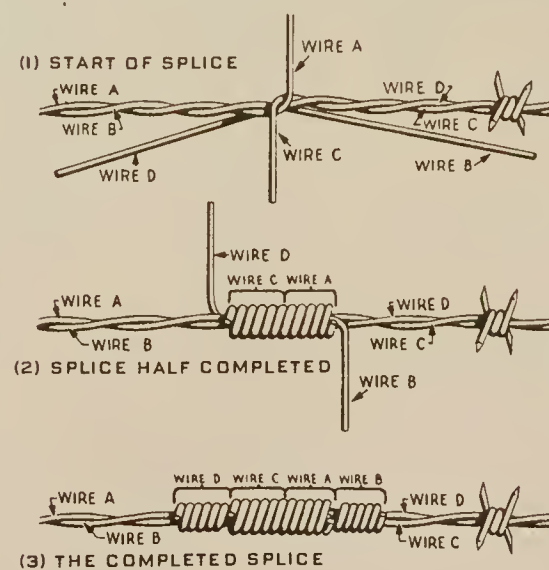
A single jack can be used to stretch woven wire fence 26 to 32 inches high. Higher fences should be stretched with a double jack stretcher. Tighten slowly and alternate process between upper and lower jacks.

Barbed Wire

Never use a tractor to stretch barbed wire, either, as there is no way to measure the tension. You may break the wire and such breakage may result in serious injury to you. Hand-stretching is the only safe way to tighten barbed wire. Always stand on the side of the wire opposite to the post.

"Western Union" Splice

In erecting fence over very long stretches, it may be necessary to splice two rolls of fence together. In the "Western Union" type of splice, each strand is wrapped at least five times around the other. At anchor posts, be sure to wrap wire back on itself rather than depend on staples for holding the wire, because the pull on staples may rotate the anchor post, causing the wire to lose tension... and the whole anchor-and-brace assembly may come apart.

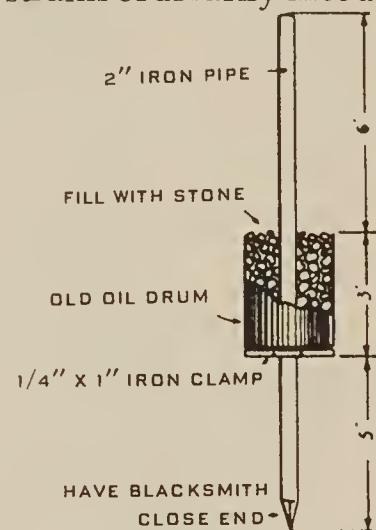


Other Suggestions

1. Farmers with pastures along lakes or streams frequently have trouble keeping fence posts in

place where the fence extends into the water.

A 2-inch iron pipe put through an old oil drum filled with stone which rests on a 1/4-inch to 1-inch iron clamp, will remain fixed throughout the year, and will withstand the pressure of ice in the spring. The oil drum filled with stones will give the post the necessary rigidity to withstand almost any strains ordinarily encountered.



2. To drive staples more easily into hard wood, pour a little oil over them. They will not only drive easier, but will bend over less frequently.

3. An old worn-out mowing machine guard makes a good staple puller. Drive the point of the guard through the staple between the wire and the post.

4. An old disc, two pieces of 2 x 6 about eighteen inches long, and

(Continued on page 23)

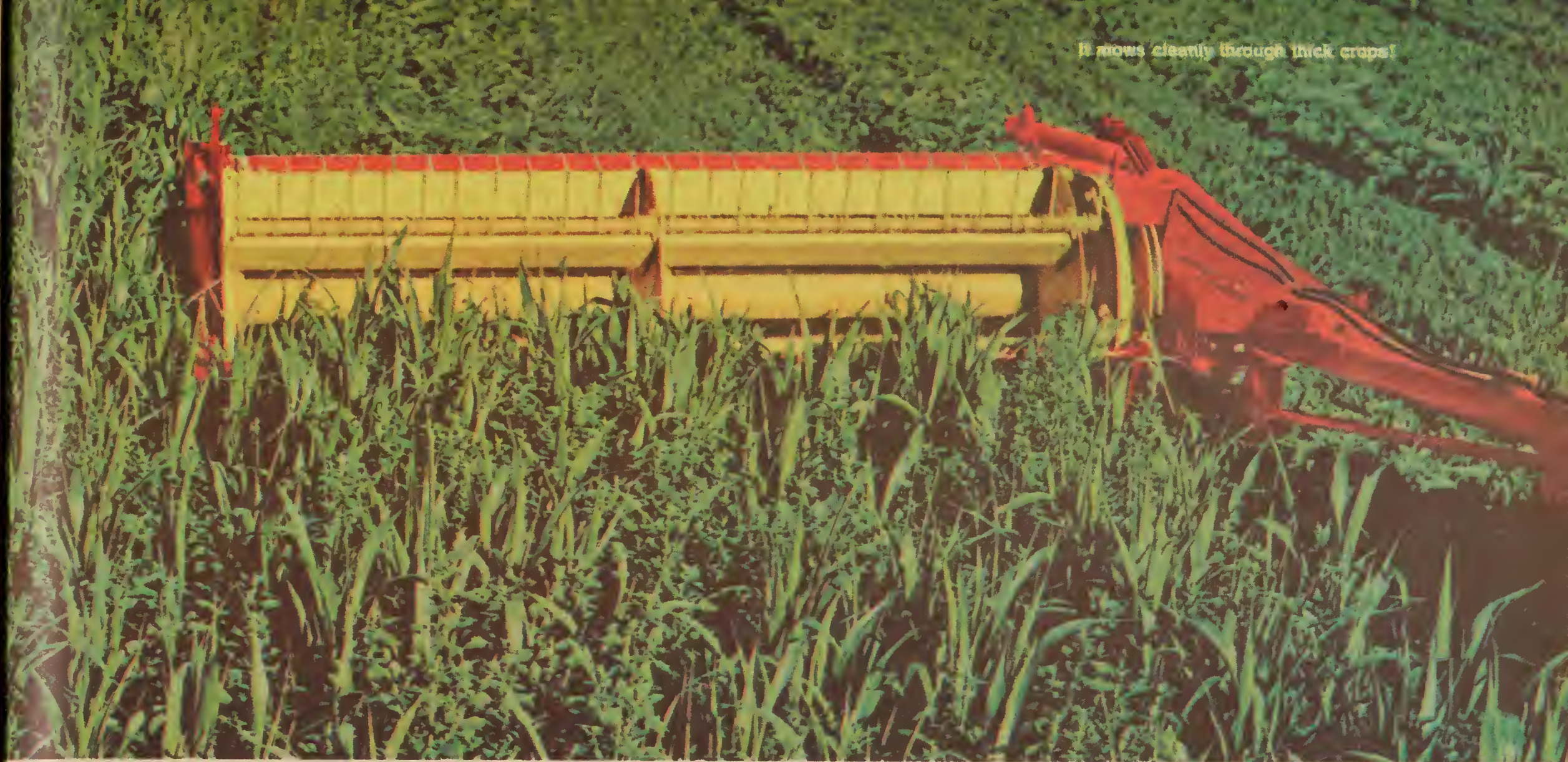
FENCES

For publications on fencing, check with your county agent or the Agricultural Engineering Department at your state agricultural college. Good information is also available from Agricultural Extension Bureau, Republic Steel Corporation, Cleveland, Ohio; from Agricultural Industry Marketing, United States Steel Corporation, 3335 Eastbrook Drive, Fort Wayne, Indiana; and from the Bethlehem Steel Company, Bethlehem, Pennsylvania.

One of the most comprehensive publications your editors have seen on the subject is "Planning Farm Fences," available by sending 50 cents and a letter to: Coordinator's Office, Agricultural Engineering Department, University of Georgia, Athens, Georgia. This is a publication sponsored by the Southern Association of Agricultural Engineering and Vocational Agriculture. The booklet won national recognition and was given a Blue Ribbon Award by the American Society of Agricultural Engineers.

Another helpful booklet is also available from the Athens, Georgia, address... entitled "Building Farm Fences," available for eighty cents for a single copy. It's a companion publication that supplements in considerable detail the planning procedures found in "Planning Farm Fences."

It mows cleanly through thick crops!



Even today's hard-to-handle hybrids are easy going for Haybine mower-crusher!

It conditions and windrows!



IF YOU'VE BEEN HOLDING OUT against the sudan-sorghum crops because no machine could handle these heavy hybrids—start changing your plans! The New Holland Haybine® mower-crusher takes 'em right in stride!

Here's a 3-in-1 machine that can move along at field speeds up to 8 m.p.h. And because the reel is keeping the cutterbar clear, you're able to breeze through tall, thick crops. Adjust the reel downward and you'll lift up tangled and knocked-down crops that would otherwise be left on the ground.

Then before this mowed crop touches the ground, it's swept

back into the full-width crushing rolls. Less chance for dirt or stones to get into windrow or swath! Whether you're making bales or silage, this helps keep crop quality high.

The Haybine mower-crusher even has the rugged strength to slice through tall cane and sorghum and lay it into a fast-drying swath.

So don't ever hesitate to plant a high-tonnage crop just because you think it's going to be a problem to harvest. Remember, this is 1966 and the Haybine is here! At your New Holland dealer's, that is. New Holland Machine Co. Division of Sperry Rand Corp.

NH NEW HOLLAND

"First in Grassland Farming"



**Grow alfalfa like this
with Alfa-tox for reliable weevil control.
Absolutely no residue in milk.**

Here's the nearest thing yet to a "perfect" alfalfa insecticide. Spray Alfa-tox*... which contains both Diazinon® and Methoxychlor . . . for control of alfalfa weevil. Control you can depend on to protect alfalfa against this destructive insect. And just about every other insect known to attack alfalfa.

Spray Alfa-tox before your first cutting. Check alfalfa bud tips frequently and treat by the time 30-50 per cent of the bud tips show signs of larvae feeding. This provides effective control of larvae which have already hatched, as well as larvae which hatch following application.

Under normal conditions, control of weevil with Alfa-tox lasts for two to three weeks, which is usually ample time to assure protection of your alfalfa until harvest of the first cutting. If a repeat applica-

tion is necessary, it may be made up to seven days before cutting alfalfa for hay.



Spray with Alfa-tox for reliable control of alfalfa weevil and other insects without danger of insecticide residue in milk.

You can be sure of no danger of insecticide residue in milk with Alfa-tox. All you have to do is wait seven days after spraying before you graze livestock or cut treated alfalfa for green chop or hay.

Plan now to get reliable control of alfalfa weevils with Alfa-tox and have no problem of residue in milk. Ask your supplier for Alfa-tox . . . an insecticide you surely can depend on.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

*Alfa-tox is a trademark of Geigy Chemical Corporation.

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CREATORS OF CHEMICALS FOR MODERN AGRICULTURE
Alfa-tox



MINIMUM TILLAGE

*It doesn't mean doing nothing, but rather knowing when to stop . . . by H. M. Wilson**

MINIMUM TILLAGE means different things to different people. It's like the boy who thought the word "frog" could mean but one thing. When he investigated he found that to a farmer a frog is a part of a plow; to a speaker, it's a lump in the throat; to a woman, it's a gimmick on her dress; to a railroad man, it's a device for switching trains, and to a naturalist it is an amphibious quadruped. The English language being what it is, you have to define everything.

Minimum tillage is simply doing no more seedbed preparation than necessary to create a good home for growing crops. To interpret this, consider the soil environment that young seedlings need, the environment they are likely to get, and the effect that tillage may have. Here's a list of soil conditions that might be looked upon as a goal for a good seedbed:

- Soil Temperature — 75 Degrees F.
- Moisture Content — Moist but not muddy
- Soil weight — 75 to 90 lbs. per cubic foot
- Granule size — 1/8 to 1/4 inch
- Porosity — 50% solids and 50% pores

While these conditions may not be ideal for every crop, they represent a degree of perfection we are not likely to maintain in a field. So there is no point in setting up more precise standards. In considering the conditions we are likely to get and the extent they can be modified, it's easier to consider the items in this list separately even though they are interrelated.

Soil Temperature

Throughout much of the Northeast, average soil temperatures are around 45 degrees in May, and even in July are below 70 degrees. However, a well-aerated and well-drained seedbed may be several degrees warmer than one that is compact and wet. As seen in Figure 1, this is important in cool weather. Note that at a soil temperature of 41 degrees, beets and carrots were the only seeds that came up and they took a long, long time. Also note that corn

sprouted in about half the time at 68 degrees that it did at 59 degrees, and at 77 degrees emergence time was nearly halved again.

Moisture

When each dirt particle has absorbed all the water it can hold, the soil is at field capacity and, except for coarse gravel or sand, is sticky and plastic. During rainy weather and in the spring months many soils are at field capacity for long periods, and may even have free water standing on them. Since this keeps the soil cold and excludes air, it is not a good environment for crop growth.

When moisture content is from 50 to 75 percent of field capacity, a handful of dirt can be squeezed into a ball that is easily broken and is not sticky or plastic. This is an excellent situation because it allows field work to be done and crops to grow after they are planted. As moisture falls below the 50 percent level and approaches the wilting point, plant growth becomes progressively slower.

Moisture is most commonly excessive in the spring, and short in hot weather when plants are growing fast. Tillage can help to overcome both extremes. The desirable 50 to 75 percent level is best maintained when the subsurface is loose enough to allow excess water to soak in quickly and the surface firm enough to reduce evaporation.

Soil Weight

The weight of a soil is a measure of its density and the way it will respond to climatic conditions. With most mineral soils a weight of 75 to 90 pounds per cubic foot is about right since it encourages good but not excessive drainage. In a freshly-plowed field, the unit weight might be only 65 pounds and be so loose as to allow too much hot weather evaporation. A weight of more than 100 pounds is usually a handicap since it restricts the movement of both water and air.

Many subsoils are naturally heavy, which is one reason for poor drainage. Surface soil may also exceed the critical 100 pound figure where there has been too

much fitting or the land has been worked wet.

Granule Size

Best crop yields are obtained when soil particles around the seed are loosely held together in granules from 1/8 to 1/4 of an inch in size. This is a little larger than a grain of wheat. Yields are only slightly lower with 1/2 inch granules, and even larger lumps may do no harm if there are not too many close to the seed. But yields decline sharply when granule sizes are reduced to 1/16 of an inch or less.

While disks and harrows are excellent tillage tools, they tend to move smaller granules down and bring clods to the zone where the seeds are planted. Incorrectly-used rotary equipment can break granules into dust. So if carried to extremes, even desirable tillage can put granules in the wrong place . . . or convert the soil into a mass that will soon be as dense as it was before it was plowed.

Porosity

Porosity contributes to and is a result of other conditions that have been mentioned. The name refers to the number and size of the soil openings. For instance, in a firm but not tight situation half the volume will be solids and the rest pore spaces. Between the granules the pores will be large enough to permit air to circulate and excess water to drain.

This makes for a warm, well-aerated seedbed where nutrients become available and seeds sprout quickly. The other half of the pores will be tiny openings within the granules where water and nutrients can be stored. This helps maintain a desirable moisture situation, since a foot of good soil can hold up to two inches of water without being saturated. So long as a soil has good porosity, it is unlikely it will become heavy enough to cause trouble.

Now for some results of so-called minimum tillage. Some of the most impressive of these are where there were no check plots, so there is no way of knowing what would have happened had other methods been used. For example, on April 8 in the drouth year of 1963, we gave one shallow rotovating to a fall-plowed field and then seeded alfalfa. More fitting had been planned but, since frost action had crumbled the furrow slice, more seemed unnecessary. Although rainfall was 6 1/2 inches below normal that summer,

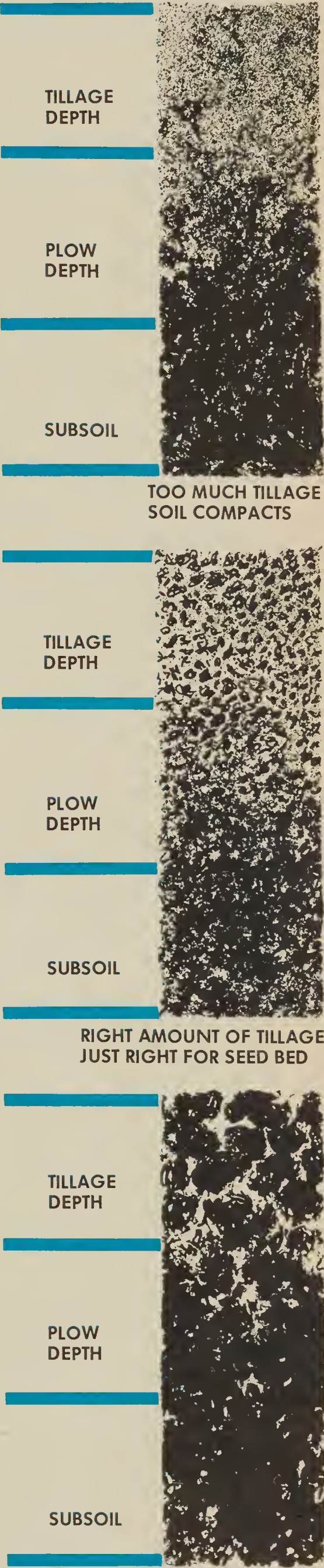
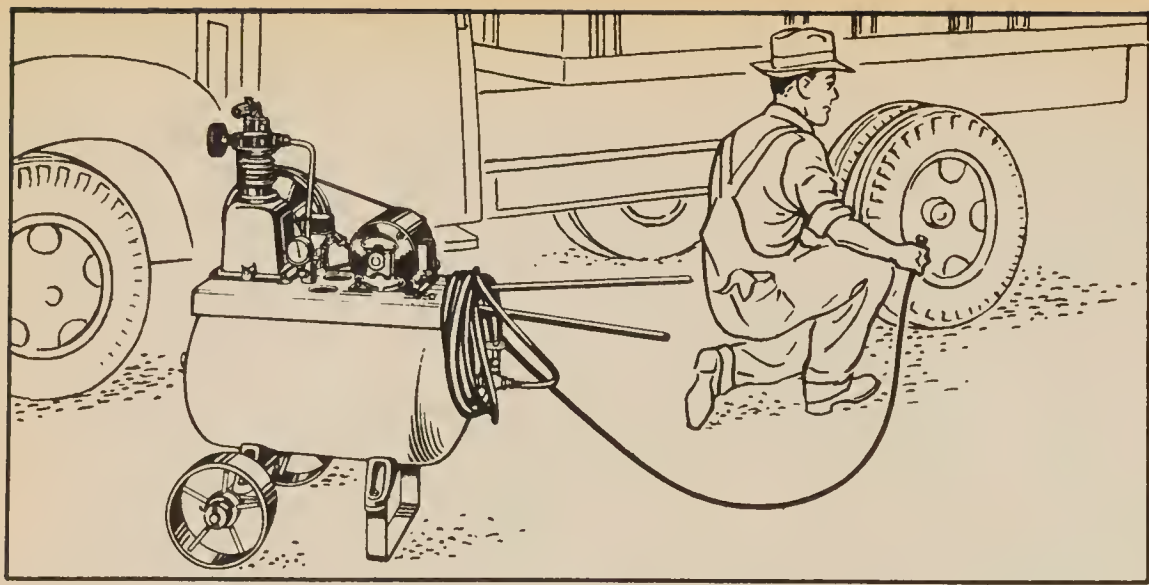


Figure 1. Days to Emergence of Some Seedlings at Various Soil Temperatures
Soil Temperatures in Degrees Fahrenheit

Crop	41°	59°	66°	77°	86°
Beans	X	16 days	11 days	8 days	6 days
Beets	42 days	10 "	6 "	5 "	4 "
Carrots	51 days	10 "	7 "	6 "	6 "
Corn	X	12 "	7 "	4 "	4 "



AIR COMPRESSOR SELECTION

by Wes Thomas

MANY FARMERS are becoming increasingly aware of the need for an air compressor.

The most important single consideration is adequate capacity. In addition to pressure (measured in pounds per square inch) the compressor must also supply volume (measured in cubic feet per minute). The higher volume outfits are more expensive, but don't be tempted to buy a unit that will be too small to provide full benefits.

Types

There are several types available.

Spark-plug tire pump — An inexpensive device which can be attached to any gasoline engine of two or more cylinders. One spark plug is removed and the pump connection screwed into the spark plug opening. The engine is operated at slow idle. Only clean air is delivered... no gasoline, exhaust gas, or oil vapor. These units are suitable primarily for tire inflation. The hose is attached directly to the tire valve stem, and no pressure storage tank is used.

These pumps have a rather low capacity. For instance, five minutes may be required to inflate a regular automobile tire. However, this is still better than using a hand tire-pump. Maximum pressure capacity is about 75 to 80 psi.

Diaphragm-type pump — A flexible diaphragm produces the pumping action. The usual power source is a fractional-horsepower electric motor. The small size and light weight of the diaphragm pump and motor permit them to be mounted on a small base, fitted with a handle, and used as a convenient portable unit. An average unit will deliver 2½ cfm at 25 psi. Pressures of 40 to 45 psi can be produced, but volume of air delivered is reduced.

Normally, these units are not fitted with a storage tank. The pump is operated continuously and a bypass-valve arrangement unloads the pump when the output air is not being used.

Piston-type pump — One or more reciprocating pistons compress the air. This type pump is normally used if pressures of 50 psi and above are required. Almost any desired combination of pressure and capacity can be obtained by using several cylinders, and arranging them in stages.

A storage tank is usually used.

One of two type controls regulates air pressure. An automatic start-and-stop control is used when the demand for compressed air is varied or infrequent. Switches with various cut-in and cut-out pressures are available for different requirements. This control is used where it is convenient to start and stop the motor.

An unloader is used where it is not practical to start and stop the motor during operation. The motor runs continuously. However, when the pressure in the storage tank reaches a preset value, the unloader valve holds open the intake valve of the compressor, allowing the compressor to run idle. This type control is used with a gasoline-engine driven compressor.

Other Items

Some compressors are designed to provide a larger volume of air at low pressure, or a smaller volume of air at higher pressures. Thus, the low pressure air supply is used for paint spraying and the high pressure for greasing.

Most of the piston-type compressors deliver air at 125 to 150 psi-pressure. This pressure is too high for the spray painting equipment normally used in the farm shop, so some type of pressure-regulator will be needed to reduce the air to the proper pressure.

Terms You Should Know

When you start investigating the various types and makes of compressors you will probably discover some unfamiliar terms. An understanding of these terms will help you to compare the values of the various units available.

Single-stage compressor — This is a piston-type compressor of one or more cylinders in which the air is pushed into the compression chamber by atmospheric pressure, then squeezed to the final desired pressure.

Two-stage compressor — A piston-type compressor of two or more cylinders. The larger one is the first or low-pressure cylinder; the smaller one is the second-stage or high-pressure cylinder. The air that is compressed by the low-pressure cylinder is routed to the high pressure cylinder for further compressing.

Piston displacement — This is the volume swept through per minute by the first-stage cylinder or

cylinders. It is equal to the piston area times the stroke times the number of revolutions per minute. This term is used by most manufacturers to rate their machines.

Actual air — The actual or useful air is the amount of air per minute actually delivered by the unit. It is less than the piston displacement because of leakage past the piston, losses in the valves, and expansion due to heat. Actual air, in cfm (cubic feet per minute), is the air that is available for doing useful work. This value is one that should be compared among the various compressors under consideration.

Volumetric efficiency — This value equals the actual air divided by the piston displacement. It is a measure of the efficiency of the compressor... another useful comparison among various compressors.

Accessories

In addition to the regular items of air-operated equipment such as spray guns and grease guns, there are several accessory-type items

which you can add to an existing installation.

Air dusting gun — Essentially a nozzle and a thumb-operated on-off valve that is attached to the end of the air hose; especially helpful in removing dust, dirt, and moisture from farm machinery.

Cleaning gun — Similar to the air dusting gun, but in addition it includes a short hose which is used to syphon a solvent into the gun to be mixed with the air stream. It's a great aid in removing grease and oil from machinery.

Carts — The smaller compressor outfits can be fitted with wheels and a handle to make it easy to move the compressor around the shop or the farmstead.

Portable tank — A small lightweight tank which can be "filled" from the compressor and then transported to another location for use of the compressed air. For example, it can be used to take air to a tractor or implement in the field, or in locations that would be inconvenient to transport the compressor itself.

Howard Potter with his two Suffolk rams — "Joe" and "Little Joe"

MATURE EWES PROFITABLE



"I FEEL that profit-wise I do better with mature ewes than with young ewes. And I have a lot better luck with spring lambs than with summer lambs."

Those are the feelings of Howard Potter, Shortsville, New York, who has had some tremendously good results with sheep during the past 5 to 6 years. He keeps 40 to 45 ewes, most of them 6 years old or older.

Other sheep growers are still envious of the year he lambed about 200 percent... highlighted by six sets of triplets, all of whom lived!

Howard has warm dry quarters for his sheep converted from farrowing pens, other barns, and sow paddocks. After a session with ill health a few years ago, he decided to raise sheep... feeling they would not be as confining as dairy cattle or swine.

"I can buy mature ewes for less than young ewes, of course, and by giving them good care I've had good fortune with them," he points out. Mature ewes are more inclined to produce multiple births and this has probably helped him to reap somewhat larger lamb crops.

Most of his ewes are Suffolk; some are cross-bred. None are purebred, but he does have a good purebred Suffolk ram. Nicknamed

"Joe," this ram has been in service for five years. One of his sons, a lamb this year, has been kept for stud purposes. His name... "Little Joe," of course.

Howard puts the rams with the ewes the last of August and then clips the ewes a week before they lamb some 140 days later. Even though it sounds a bit inhuman to take away a wool coat in mid-January, the quarters are warm and he hasn't lost an ewe yet.

He plans on marketing his lambs within five months... when they weigh about 90 pounds. The lambs are marketed locally, mostly in Rochester and other nearby cities.

Howard has worked with Dr. Warren Brannon of Cornell University, and the Ontario County Extension agents in developing rations for his flocks. One feed ingredient he swears by for all his sheep is soybean oil meal. He feeds it, as well as a ground ration, to his lambs in a creep. Then he swings them over in gradually-increasing amounts to what he calls his regular sheep ration.

This ration includes 600 pounds of hay, 200 pounds soybean oil meal, 400 pounds oats, and the balance of ear corn. Added are 10 pounds each of aureomycin, salt, and minerals... as well as 150 to 200 pounds of molasses. — Robert Cudworth

American Agriculturist, April, 1966

Does your crop know enough to come in out of the hail?

If not, shouldn't you buy crop-hail insurance to protect it?

Your fruit, unfortunately, cannot protect itself from sudden hailstorms. But you can protect yourself and your basic income from the financial disaster that one good hailstorm can bring.

How? By getting your INA Crop-Hail insurance right now, and providing yourself with "Full Season Coverage" at no extra cost. With INA's new simplified form, you get full crop-hail coverage on the spot. No long wait. No binder. You know you're covered for sure just 24 hours after the policy is written.

And an INA policy provides service, the kind of fast and efficient service for which Insurance Company of North America is famous, the kind of personal service which makes an INA Crop-Hail policy the best one for you to have.

Remember: "Full Season Coverage" from INA costs no more, and helps guarantee you a successful season no matter how hard it hails. Call your local INA man now. Or, if you prefer, send in the attached coupon, and we'll mail you detailed information.

Mail to one of the following

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Insurance Company of North America
P.O. Box 1425, Harrisburg, Pa. 17105

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P.O. Box 931, Syracuse, New York 13201

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Please send me more information on INA Crop-Hail services.

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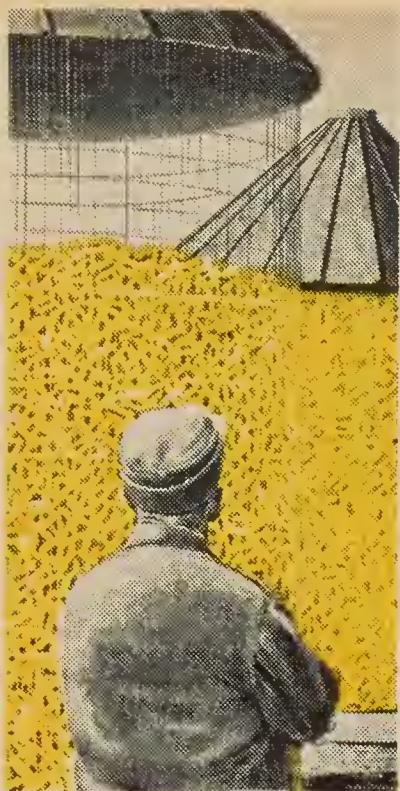
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INSURANCE COMPANY OF NORTH AMERICA
World Headquarters: Philadelphia



Last year
he wished
he'd planted
XL.



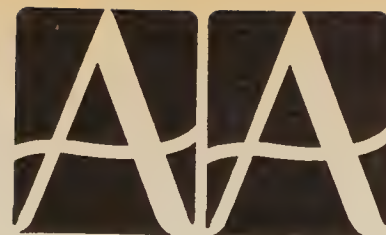
This year he did.

It's only money. But why should you wait another year to better your crop. Many, many farmers have experienced a remarkable breakthrough to higher corn yields with the help of DeKalb XL Single and 3-way cross hybrids. Why don't YOU plant the seed bred for thick planting and heavy fertilization, stronger stalks, greater resistance to disease and insects. Don't ask for DeKalb XL—insist on it. See your DeKalb Dealer Now.



"DEKALB" is a registered brand name.
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MORE FARMERS PLANT DEKALB THAN ANY OTHER BRAND.



FARM DOLLAR GUIDE

VOLUME OF FARM CREDIT has increased in New York about 50 percent in the last five years. Drought conditions, farm expansion, purchase of machinery and equipment have contributed to this increase ... this trend is likely to continue in 1966. Credit may cost a little more in 1966; on the other side of the balance sheet, farm assets are also increasing.

IN ADDITION to "Orbit," mentioned in the March issue, there are two other new oats ... Tioga and Niagara. Tioga is resistant to loose smut, stem rust, and some races of crown rust. It is medium-short, has stiff straw, and yields well, especially where other varieties lodge. Niagara ranks among high yielders. It resists smut, tolerates rust, and resists black stem disease. It has a higher percent of "meat" than most varieties.

THREE WAYS to help prevent disastrous price years for New York onion growers are suggested by Professor George Raleigh of Cornell. They are: (1) USDA to issue estimated acreage reports on June 1 rather than in August. This would permit growers to disk fields and plant to other crops if the acreage indicated over-planting; (2) the artificial drying of New York onions at harvest to minimize neck rot; (3) reinstate provision for onion futures to permit hedging by growers. Professor Raleigh pointed out that use of futures by growers for speculation rather than hedging would defeat its purpose.

YOU CAN'T COMPARE production costs with those of other farmers unless you know what the other fellow included in his costs. For poultrymen, this problem is solved by the Northeastern Poultry Producers Council (NEPPCO). At a small cost a producer can send a few figures each month, and a comparison of results with the average of many poultrymen will be sent to him.

THE VERMONT EXTENSION SERVICE makes the following suggestions to cut down on incidence of mastitis: Daily clean vacuum hoses and all milk contact surfaces. Weekly (1) clean the vacuum line regulator; (2) clean the pulsators ... replace worn parts; (3) alternate teat cup liners. Wash used parts thoroughly, dry, and store in dark for one week, then switch sets again; (4) check condition of all rubber parts (liners, check valves, hoses). If cracked, spongy, or misshapen, replace with parts recommended by manufacturer. Monthly, (1) examine vacuum line. If dirty, wash by running solution through each stallcock. (start near pump); change pump oil frequently. Use oil recommended by manufacturer-dealer every season.

DAIRY FARMERS can expect to receive an average price of \$4.34 per hundredweight in the coming four-month period, according to Administrator Pollard. This is 50 cents more than they were paid in the same four months last year. It was previously predicted that the farm price for this period would average \$4.01 per hundredweight.

IN A SURVEY by NEPPCO, poultrymen oppose a national egg marketing order by a large majority. They feel that conditions vary too widely to make a country-wide order fair or practical.



No

No need to tie up labor and equipment by cultivating corn when you can control most annual broadleaf weeds and grasses for the entire season with one spray of Atrazine 80W herbicide.

That's right, one spray of Atrazine at corn planting time reduces the need for cultivating. So you'll have that time for other important farm jobs, like getting your first cutting of hay in on time.

You can spray Atrazine at planting or after planting, until weeds are about 1½ inches high. Rainfall moves Atrazine down into the weed root zone, where it is absorbed by the roots of germinating weeds. Keeps most annual broadleaf weeds and grasses under control for the entire season.

If it's dry after you've sprayed, and weeds are getting started, then it's a good idea to go in with a rotary hoe or shallow cultivation. This gets the early weeds and moves Atrazine into the weed root zone,

where it controls later germinating weeds.

A new idea that's catching on fast is spraying Atrazine in combination with liquid nitrogen solutions. One trip over the field weeds and feeds your corn.

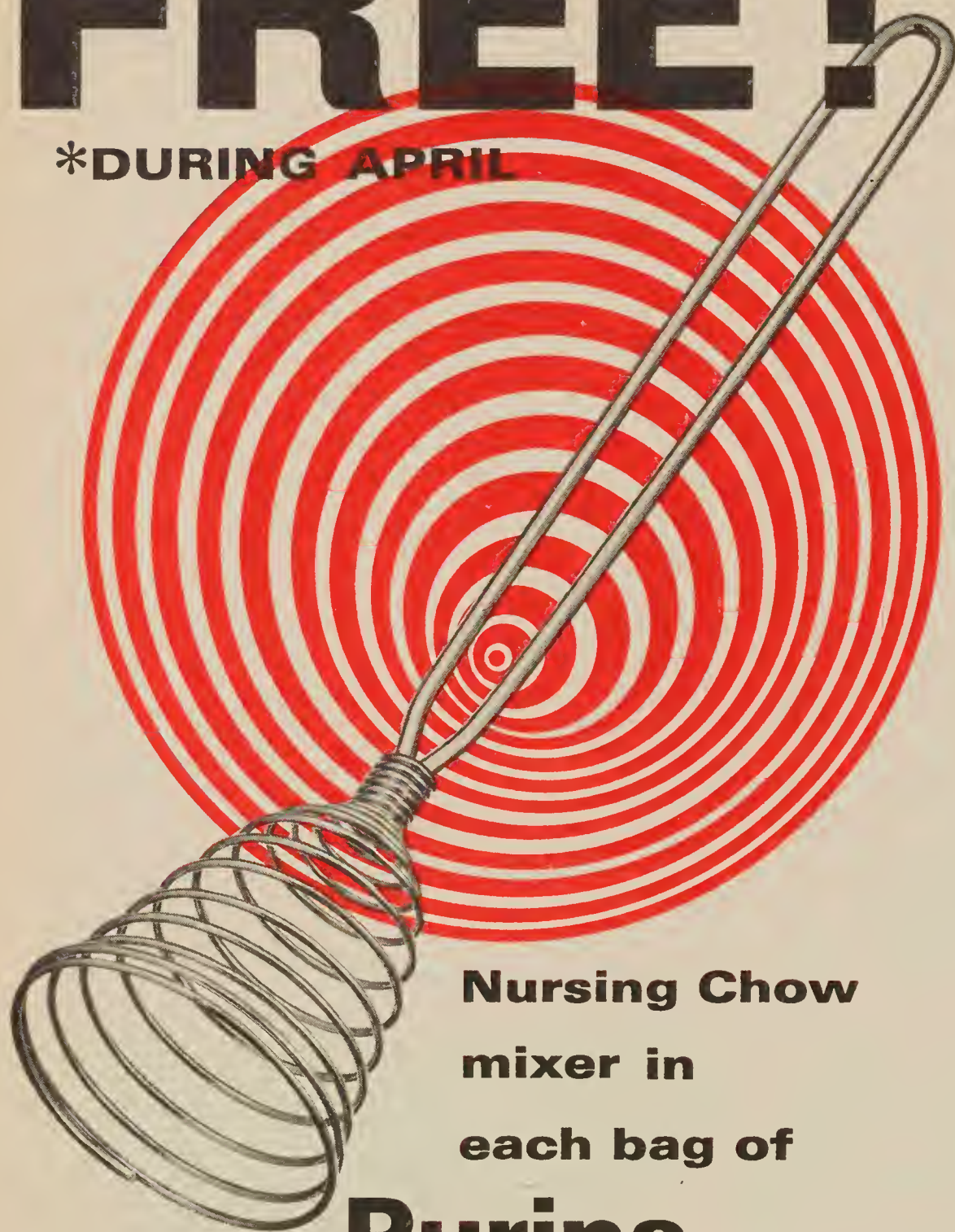
This takes somewhat special equipment, however, so it's best to ask your custom spray applicator about it. He's probably equipped to spray the Atrazine-nitrogen combination for you. That way, you won't have to worry about weeds or grasses... and the nitrogen will be there to get your corn off to a fast, healthy start.

So why tie up labor and equipment cultivating corn when one spray of Atrazine is all you need for an entire season without weeds or grasses and without numerous cultivations. Contact your local supplier or custom spray applicator.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

FREE!

***DURING APRIL**



**Nursing Chow
mixer in**

each bag of

Purina Nursing Chow

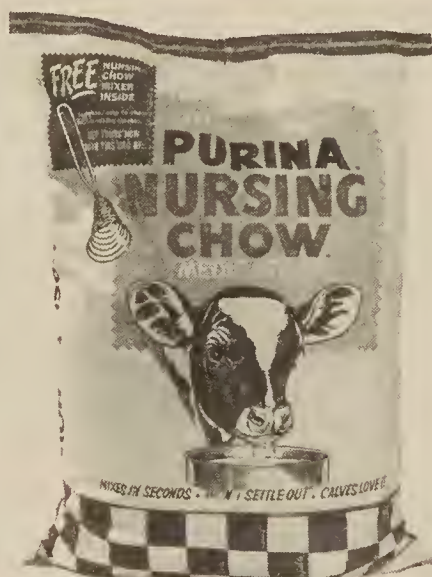
Here's a special "bonus" offer when you buy Purina Nursing Chow during April . . . a handy, stainless chromium plated Nursing Chow mixer in each 25- or 50-pound bag.

You'll like Nursing Chow because:

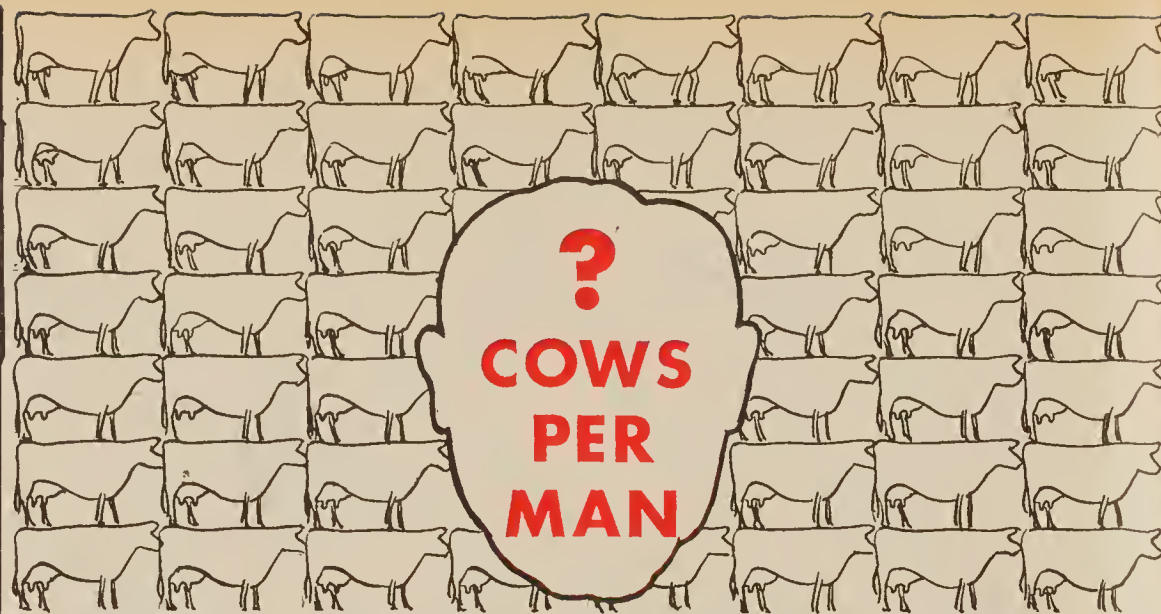
- It's a milk-base milk replacer that mixes fast and thoroughly in warm water.
- It's economical . . . 25 pounds replaces 225 pounds of whole milk that you can sell.
- It's improved—with an energy-protein balance that in tests has grown month-old calves 6 pounds heavier than those fed other milk replacers.
- Nursing Chow contains a powerful antibiotic, too, to guard your calves against scours.

Let Purina Nursing Chow help you start your spring calves fast. Get Nursing Chow—and your free mixer—from your Purina dealer at the sign of the familiar red and white Checkerboard.

**While they last!*



**PURINA
CHOWS**



**?
COWS
PER
MAN**

THE DAIRY REVOLUTION

by Howard Conklin*

THE REVOLUTION in poultry farming has converted that activity from farming to what is essentially biological manufacturing. The poultry revolution resulted from a very good, labor-cutting package of technology in combination with the ruthless competition so characteristic of agriculture. This revolution made some big changes in who produces our eggs and poultry meat. It also "released" half the poultrymen for other jobs, cut the farm price of eggs by something like 30 percent, and dropped broilers from a prestige item to a cut-rate "substitute" for meat.

One Coming

Now, an impending revolution. A package of technology finally has been put together for dairy farming, tested by a few hard-headed and demanding dairymen, and proven capable of cutting by half the labor needed to produce milk. It has proven capable, also, of cutting the farm land needed for milk production by at least 25 percent.

The dairy revolution will not move as fast as the one in poultry. It will require a greater total volume of capital, and will therefore demand more of farmers' capital sources. The total investment in buildings that will be made obsolete by the change is greater than it was with poultry, so farmers will resist change more. And the increase in output per man promised by the revolution is not yet quite as great as that in the poultry revolution. But I am convinced that young farmers in business today will live to see some really big and widespread changes in dairying.

I used to smile indulgently when people talked about 100-cow dairy farms. I was secure in the thought that the average labor force on the farms of this nation has not varied from the equivalent of 1.75 men for a century, and probably will not for many years to come. And I thought I was secure in the knowledge that cows per man had not reached 25 in spite of a long slow upward struggle, and in the notion that it was not very likely to reach 57 for many, many years to come (100 cows per farm ÷ 1.75 men = 57).

I still believe that workers per

farm will not rise because I believe family farms will remain strong. But the technological changes of the past five years have blasted my thoughts about how long it will take to reach 57 cows per man. A few friends and acquaintances of mine are jumping from 25 to 50 cows per man almost overnight. Their great steps forward come from the multiplier effect that results when a bunch of otherwise relatively unexciting pieces of technology finally are put together in the right packages.

The dairy farming package that has just arrived on the scene has many parts and fragments, but men finally have learned how to put them together in a package that has real impact.

One part in the package is the feeding of more silage per cow, especially corn silage. In the corn silage sub-package are improved varieties, better seed treatment, minimum tillage, improved herbicides, better and less-costly fertilizer, bigger tractors, better and bigger choppers, better wagons. A feed handling sub-package comes next with bigger silos, better unloaders, bunker feeders, and bulk handling of concentrate.

Sub-packages

Then we have the milking sub-package . . . milking parlors, pipeline milkers, and bulk tanks. And there is an animal nutrition, health, and breeding sub-package that includes the know-how for higher concentrate feeding, higher genetic production potential, and better health in spite of high feeding pressure. Finally, we now appear to have in free stalls a form of loose housing that is really practical under a wide range of conditions and fits well with the other sub-packages.

Put these things together and you have a really mechanized operation with high output per man and per acre. It will take something like a half billion dollars of new capital to make the change over the whole of New York State, but it can be made, and if everyone pulls together as effectively as we have in years past, it will be made. It is now easy to visualize 100-cow dairy farms that are family farms in as full a sense as were farms with smaller herds in years gone by.

I am convinced that the numbers of commercial dairy farmers

(Continued on page 20)

American Agriculturist, April, 1966

* Professor of land economics, Cornell University, and part-time farmer near Brooktondale, New York

PUBLISHER'S CORNER

We May Need Your Help

Your farm paper is making some more changes!

We have made many these past three years... probably more than in the whole 124 years since we started.

You have seen the changes: To whiter paper, to larger type, to more pictures, to four-color printing on some of the most modern offset presses in the world. Then we combined the American Agriculturist and the Rural New Yorker to give you what has been called the finest state farm paper ever offered in the rural Northeast. This permitted the production of a larger paper able to bring you each month more and a greater variety of information about our own area and our own local crops, markets, homes, and neighbors.

But one thing still bothered us... we couldn't handle your instructions as fast as we wanted to. When you wrote or gave instructions to our field agents, it often took up to 6 or 7 weeks to get an address changed or a renewal order entered. You may be used to that with magazines sending

millions of copies clear across the country but, as a local farm magazine, we wanted to do better.

So, we are switching to the most modern electronic equipment available.

From information we gave it, a computer printed your label on this issue. Your name, address, and the month and year your paper is paid to are all, we hope, clearly printed. The other numbers record your order to make sure you get credit for what you pay for. Within two months the computer will add your zip code number to comply with new post office requirements.

The above explains why you have a different label on your copy. But there is something else I'd like to point out:

Computers don't make mistakes... but we do.

If anything is wrong on your name and address label, please help us during this change-over by sending the label to us (Box 516, Ithaca, N. Y. 14850). We know we cannot be perfect... but with your help we want to try. — A. James Hall, Publisher

SHEEPMEN'S DILEMMA

I am most interested in a situation which has been disastrous to sheep farmers, and can well mean the end of the enterprise for many.

At a recent session of the New York State Legislature a law was passed (5B Agriculture and Markets Law) requiring the inspection of all meat animals as they are slaughtered, and requiring a stamp of approval before they may be offered for sale or transported. This law takes away one of our most important markets, the hothouse or Easter lamb market.

The federal meat inspection law provides for an exemption of hothouse lambs. This exemption permits the slaughtering of these lambs on the farm; they then must move to a plant under federal inspection for approval of the product. The plants under federal inspection are not permitted to receive hothouse lambs unless they have been farm-slaughtered. This brings the requirement into direct conflict with the New York State law.

The market runs from November to Greek Easter.

Several meetings have been held at which the sheep farmers have aired their views to officials of the Agriculture & Markets Department... but no solution has been forthcoming. At the last Easter season the Department made an exception, and allowed the hothouse lambs to go to a plant under federal inspection. They say they cannot make the exception again, as it would be against the law.

It is generally agreed among farmers that hothouse lambs can-

not be properly processed in slaughter-houses. When slaughtered on the farm the farmer can take the time properly to clean and prepare the carcass by carding the wool and hand-cleaning... but the regulations of the Agriculture and Markets meat inspection #821 call for washing the lamb with water under pressure, which would, of course, spoil the appearance and make a perfect culture for the growth of bacteria.

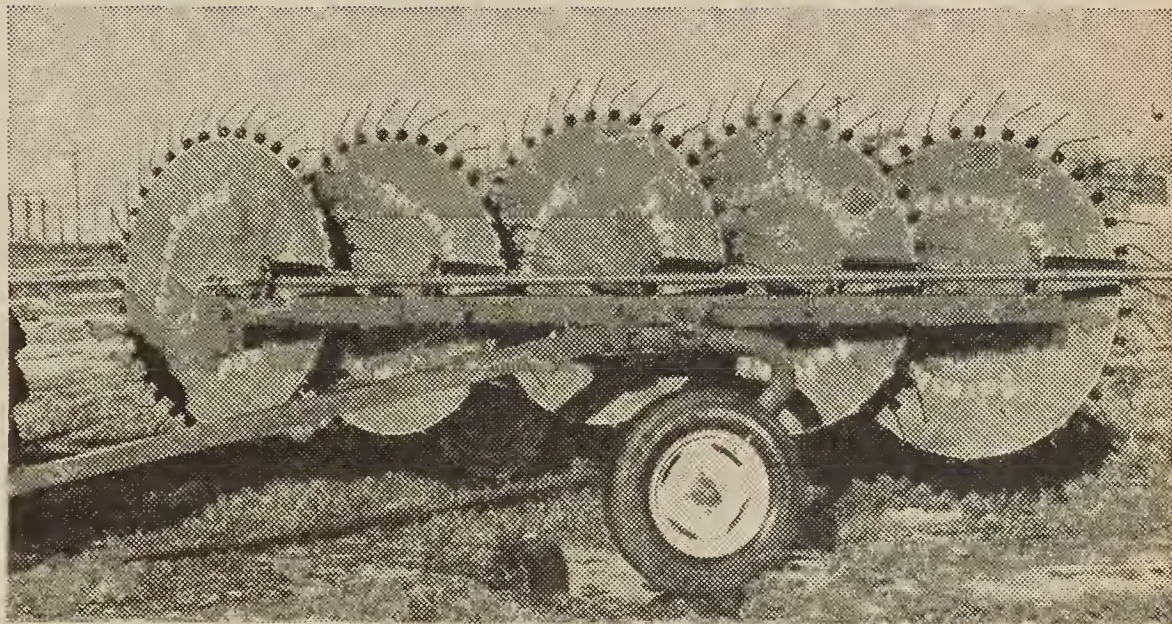
I should have mentioned that these lambs are hog-dressed, leaving the head and pelt on them. When properly prepared they make an attractive appearance and, just as home-made bread can only be made at home, just so hothouse lambs can only be dressed on the farm.

A Market Lost

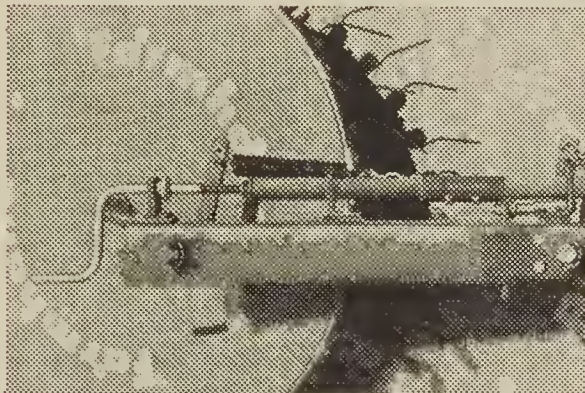
Another market lost to the farmer is the lamb which he has been selling to his neighbor for his freezer. This must now be slaughtered in a plant under New York State inspection. In many cases no plant is available within a reasonable distance. In my case I have to drive 35 miles to a slaughter-house to leave a lamb, and two days later I must make the same trip to pick it up. When the fee for slaughtering is paid and I count the cost of driving 140 miles (and losing so much time in doing so), I realize that I have lost considerable, especially when I consider that I could have done the job just as well here on the farm in 30 minutes.

— Gilbert H. Norris,
Guilford, N.Y.

"WHEEL RAKING" with a new FARMHAND is fast, clean and costs less!



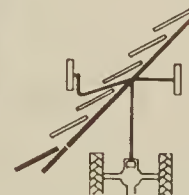
TRY IT ON YOUR FARM, with one of Farmhand's new "F-series" rakes. You'll like the clean, gentle raking action of Farmhand's independently-suspended wheels and patented double-coil spring teeth. You'll like the low initial cost. And with no gears, ratchets, belts, pulleys, etc. to wear out, maintenance costs are practically eliminated. The Model F-5 shown here rakes a 7½' swath, is easy to adjust to narrower swaths or for offset raking, makes an excellent windrow turner too. Exclusive "Add On" feature lets you rake up to 11'.



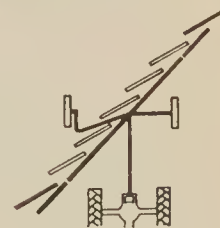
"ADD ON" FEATURE consists of kit containing bolt-on frame extension, crank, extra rake wheel and accessories. Hand crank raises and lowers all rake wheels simultaneously.

MONEY-SAVING VERSATILITY

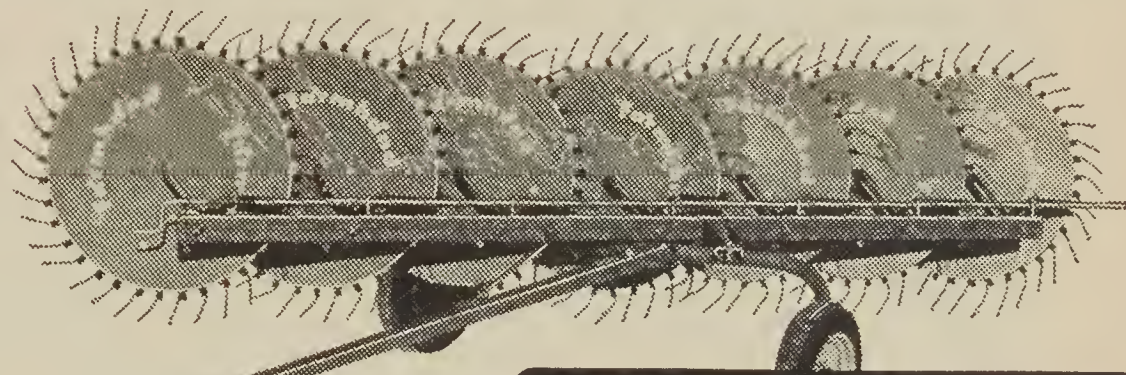
ADD 1 EXTENSION KIT front or rear to make a 6-wheel F-5 or 8-wheel F-7.



ADD 2 EXTENSION KITS front and rear to make 7-wheel F-5 or 9-wheel F-7.



RAKE UP TO 14' with this big, rugged Model F-7, plus two extensions. Basic F-7 rakes an 11' swath. It adjusts for offset raking up to 8'. Crank or hydraulic-adjusted raking wheels. Rakes on rough or rocky ground without damage. No skipping of low spots, no slipping or sliding. This rake is unmatched for efficiency. No rake does a better job.



Farmhand Windrow Turner, with 2 raking wheels is available to fit any tractor.

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Please send literature on _____
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HIGH SILAGE

We've been feeding all corn silage as a roughage to our 202 cows during the winter. One of our silos, by the way, is a 30 x 80 that holds a lot of corn!

One of our problems was butterfat depression... going to a test as low as 2.8 at one time, but now back up to 3.5. All our grain is fed in the feed bunk, blended with silage.

At one time we were up to 40 pounds of grain per cow per day, but we cut back on this and improved the butterfat test. In fact, some cows actually increased in pounds of milk when grain feeding was reduced from the high level I mentioned... we have a herd average just over 13,000 pounds per cow.

We don't attempt to feed cows individually according to production, but divide them into four groups. Fresh cows, cows close to freshening, and those producing 80 pounds or more get 20 pounds of grain per cow each day. Those producing 50 to 80 pounds of milk a day get 25 pounds per cow... a bit more than top producers. The "35 to 50 pounders" get 13 pounds each; dry cows and those producing under 35 pounds receive four pounds each. — *DeGolyer Brothers, Castile, N.Y.*

GRAPE GROWING

My 60 acres of vineyard includes 45 acres of Concord, 5 of Delaware and 10 of White Seibels 5279. Birds have become an increasingly damaging problem... especially robins, orioles, and sparrows. We've tried everything to scare them off, use carbide exploders from the middle of August to the middle of September. Unfortunately, the birds seem to get used to the noise.

During the winter, vines are trimmed and brush chopped up with a pto chopper that leaves chips on the ground. As soon as we can get on the ground (usually early April), we spray with Karmex herbicide in a band under the trellis.

Milkweed and bindweed are two of our worst weed pests... and Karmex doesn't work on either. Wax bars impregnated with 2,4-D and mounted on a tractor have been used against bindweed (leaves rub on the bar and get a dose of herbicide), but we haven't used this method.

Fertilizer goes on early, too... 200 pounds of ammonium nitrate per acre, plus potash in the form of potassium sulfate in amounts correlated to soil test "prescription." Soils vary widely in need for potash. Grapes don't seem to respond to changing pH levels nor to phosphorous. Sometimes dolomitic limestone is recommended, but higher pH levels can intensify potash problems.

DDT is used as the basic insecticide against berry moth and

thrip (leafhoppers), timed near bloom. Sevin or parathion is used if a late insecticide spray is needed; DDT must not be used less than 40 days before harvest time. Fungicides include ferbam on the Concord variety and captan or phaltan on wine varieties. Normally, there are 3 or 4 sprays a year... as the first blossoms begin to open, 10 days after bloom, and another 10 days later.

We use white cedar stakes (8 feet long) for trellises, treat our own by standing them for 48 hours in a barrel containing pentachlorophenol and No. 2 fuel oil. Three strands of 12 galvanized wire make up the trellis. *Harold Nielsen, Penn Yan, N.Y.*

BETTER HELP

In marketing, it seems to me that, in addition to the product, we need to provide some service that the buyer needs.

Some years ago I saw that if I wanted to expand production of vegetables it must be for the fresh market rather than for processing. So I went to Boston, taking along samples of the carrots I was growing. I located a couple of buyers, and have been selling to them since.

The service I give is in keeping a quantity of carrots in storage so I can provide a truckload on short notice. The carrots are in pallets, which the buyers like; they come to the farm and get them.

As I see it, one of the big problems ahead is to get efficient enough to be able to compete with industry by paying wages enough to get good help.

I look to industry to provide the equipment to make us that efficient. With bigger and more complicated equipment, we must have high-quality help. — *Max Shaul, Fultonham, N.Y.*

GROWS SUGAR BEETS

In 1965, for the first time we grew sugar beets, 80 acres of them. We also produce other cash crops on 800 acres, including table beets, snap beans, sweet corn, kraut cabbage, and wheat.

Largely due to the weather, the yield of beets was disappointing. However, we expect to continue to grow them, hoping to get an average of at least 15 tons per acre. The crop helps to spread our risk.

We experimented with chemical weed control. The results were far from perfect, but we feel sure a better job of control can be done in the future.

The crop requires adequate plant food. We put on the equivalent of 800 pounds with an approximate ratio of 1-2-2. The ratio may be experimented with further in 1966. We did some hand-weeding, but no hand-thinning on most of the acreage. Where we did hand-thinning on a trial basis the yield

(Continued on page 20)

New Angle

for weed and grass control in corn...

A combination of LOROX™ linuron weed killer and Atrazine is the new angle for corn growers

Combinations are the answer to annual weed and grass problems that no single herbicide can solve alone. Many farmers used a combination of "Lorox" and Atrazine in 1965 and were highly pleased with the results. "Lorox" is recognized for its outstanding ability to control weeds and also for its favorable rate of disappearance from the soil. Atrazine is known for the manner in which it is tolerated by corn. This combination capitalizes on the strong points of each herbicide.

Another angle...non-pressure nitrogen solution may be substituted for all or part of the water when using the combination of "Lorox" and Atrazine. One trip through the field weeds 'n feeds your corn.

This year, use "Lorox" and Atrazine in combination. Mix them yourself or buy a ready-to-use formulation of the two—look for the bag containing linuron. Ask your dealer for more information about the combination of "Lorox" and Atrazine, or write: Du Pont, N-2539, Wilmington, Delaware 19898.

For your soybean acreage, "Lorox" used alone gives you the most weed and grass control for your money. "Lorox" effectively controls both annual weeds and grasses in soybeans, at low cost and without soil residue problems.

With any chemical, follow labeling instructions and warnings carefully.



Better Things for Better Living
...through Chemistry

He's one of 12,169 on PFP and he's making \$136 more per cow.

And he made this gain in one year. That's right. Donald Miller of Bangor, Pennsylvania, increased his income-over-feed-cost by that much in the first 12 months on Agway's PFP.

Mr. Miller had tried another feeding program in 1963-64: "That one didn't work for me. But PFP did. In one year my production average went up a ton and a half of milk."

PFP also helps him do a

better job of culling: "I know now which cows are producing and which ones aren't doing so good."

There are over 12 thousand dairymen profit-feeding their cows on PFP. DHIA records show that 7 out of 10 profit-fed cows are producing more profit. You too can make more money. Start

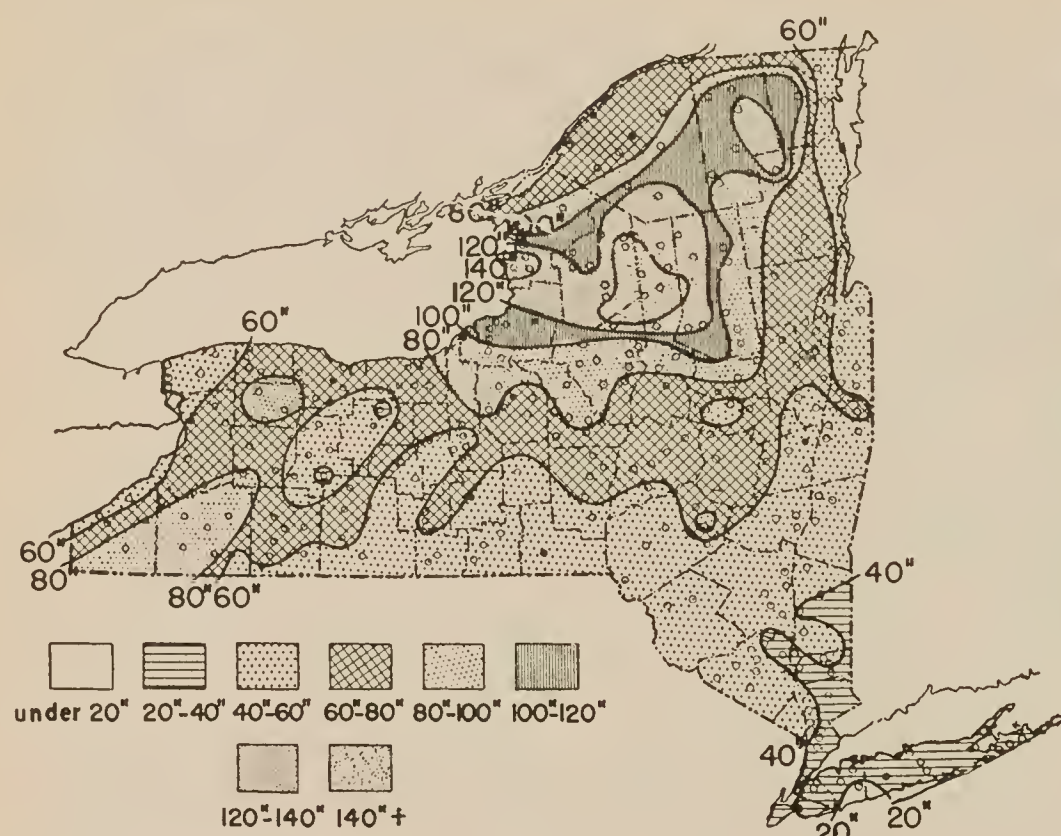
right now to manage your herd according to PFP. Your Agway man will give you the details.

Agway Inc.



DAIRY FEEDS & SERVICES





What's Your Mean Annual Snowfall?

Depends on where you live.

In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York 20 to 40 inches.

To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean!

For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Auburn	WMBO-FM	96.1 mc.
Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Auburn	WMBO	1340 kc.	Remsen-Utica	WREM	1480 kc.
Binghamton	WKOP	1290 kc.	Rochester	WHEC	1460 kc.
Boonville	WBRV	900 kc.	Salamanca	WGGO	1590 kc.
Dunkirk	WDOE	1410 kc.	Saratoga Springs	WSPN	900 kc.
Elmira	WENY	1230 kc.	Sayre, Pa.	WATS	960 kc.
Glens Falls	WSET	1410 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WHEN	620 kc.
Ithaca	WTOK	1470 kc.	Syracuse	WOLF	1490 kc.
Jamestown	WJTN	1240 kc.	Walton	WDLA	1270 kc.
Niagara Falls	WHLD	1270 kc.			
Olean	WHDL	1450 kc.			

Northeast Radio Network

Ithaca, New York



This charming village scene is typical of the ones we'll see throughout the English countryside.

VISIT THE BRITISH ISLES

Our 1966 British Isles Tour is an improved version of the very popular one we had last year. The dates are September 7-28, and we will visit Ireland, Scotland, Wales and England. Most people agree that early autumn is the nicest time of year to be in these countries.

Again, this will be an air tour for those who want a three weeks' vacation, but it is possible to make either or both Atlantic crossings by ship if you wish. Our tour agents, the Travel Service Bureau of Needham, Mass., will be glad to make the arrangements for you.

In each country, places we have heard about in song and story will come alive and be just as fascinating as we have always imagined them. Visiting Ireland first, we will see Galway, the beautiful Connemara District, River Shannon, County Kerry, the Lakes of Killarney, Blarney Castle, Tipperary, and Dublin. In Dublin, those who wish to attend a play at Abbey Theatre may do so, and there will be time to shop for Irish souvenirs and gifts.

Scotland

A short hop across the Irish Sea takes us to Glasgow, Scotland. On a side trip from here, we will visit Robert Burns' Cottage and see Brig o' Doon. Continuing north through the Scottish Highlands, we pass the giant shipyards where the Queen Mary and Queen Elizabeth were built. We motor through the heather-covered countryside and travel the full length of Loch Lomond and Loch Ness to Inverness.

The following day we will see Culloden Moor, Balmoral Castle, and many other fascinating places on our way to Edinburgh. Here we make an excursion to Edinburgh Castle and then down the Royal Mile to see John Knox's House and visit St. Giles Cathedral and the Thistle Chapel, Holyrood House and, of course, Princes Street, lined with shops on one side and gardens on the other.

England and Wales

Crossing over into England, we see the ancient Roman Wall, built in days of the Caesars, and enter

the beautiful Lake District. We pause at Ambleside to see Wordsworth's cottage and travel on to our hotel in Windermere with its marvelous view of the lake and surrounding mountains.

The next day we visit the old walled city of Chester and tour the most scenic areas of northern Wales on our way to Stratford-on-Avon and Shakespeare country. Places we'll see here include Warwick Castle, Anne Hathaway's cottage, and lovely Trinity Church where the poet is buried.

Going back to Wales, we follow the beautiful Wye Valley past historic Tintern Abbey and drive through some of Britain's most productive farming country to the south coast of Devon. We'll visit Plymouth, the popular resort city of Torquay, Salisbury, and historic Stonehenge.

Our British Isles Holiday will end with four wonderful days in London. Sightseeing here will include Westminster Abbey, the Houses of Parliament, Buckingham Palace, and Tower of London. We'll also visit nearby Windsor, Eton College, Runnymede where the Magna Charta was signed in 1215, and Canterbury Cathedral.

We will be happy to send you a free copy of the illustrated itinerary. It will give you day-by-day details and the price of the all-expense ticket. Space is definitely limited to one motor coach, so don't delay in writing and making your reservation to go with us.

Other Tours for 1966

Time is getting short and our Grand European Tour party is almost complete, but it is still possible to go with us if you act at once. The dates are May 14 to June 21, and we'll see the most beautiful and famous places in seven countries — Holland, Belgium, Germany, Switzerland, Austria, Italy and France.

Our Scandinavian air tour will take us to Denmark, Sweden, and Norway from June 7-28. Days are long with the Midnight Sun glowing around the clock, and springtime beauty is everywhere.

There'll be two Alaska Holidays
(Continued on page 19)

Minimum tillage

(Continued from page 9)

two alfalfa cuttings were harvested in the year of seeding, which yielded 1 1/2 tons per cutting. Seedings made at a later date by conventional methods were a failure.

A snap bean grower in Livingston County, New York, who pulled a spike tooth harrow behind his plow then planted without further fitting, is reported to have harvested between 4 and 5 tons of snap beans per acre. A cabbage grower in Yates County said he didn't like to set cabbage after plowing and only one disking because it was hard to cultivate, but he continued the practice because it gave such good yields.

Comparisons

But there are also results from field trials that do provide a direct comparison between methods. In St. Lawrence County, with corn the crop, plowing plus one shallow rotovating produced 24 tons of ensilage per acre. This was 2 1/2 tons more green weight than was obtained from conventional tillage. The increase was largely due to a better stand.

In Genesee County field trials with peas, the lesser fitting produced better stands than did conventional. Although the crop was very badly hurt by drouth there was a slight yield advantage for minimum tillage. At the Geneva Experiment Station carrots produced 26 tons per acre where only a plow and clodbuster were used, as compared to 15 tons with the conventional three diskings. Also at Geneva with the same comparisons the yields of both early and late table beets averaged 10 percent higher on the lesser-tilled plots.

The table beet averages included

British Isles

(Continued from page 18)

this year (June 7-26 and July 27-August 14). The beautiful Inland Passage cruise with stops at interesting Alaskan ports make this a favorite summer vacation.

You'll also have a choice of Hawaiian Tours — one in the summer (July 29-August 14) and the other from October 7-23. Itineraries are almost identical, so it's just a matter of deciding which dates suit you better.

To get a copy of any one or all of these tour itineraries, just fill out the coupon and mail it today.

Gordon Conklin, Editor
American Agriculturist
Box 370-T
Ithaca, New York 14851

Please send me, without obligation on my part, the following tour itineraries:

British Isles Holiday _____

Grand European Tour _____

Scandinavian Holiday _____

Hawaiian Holidays _____

Alaska Tours _____

Name _____

Address _____

(Please print)

one block where the soil was very lumpy and where minimum-tilled yields were only 2/3 of conventional. This brings out a point that has been made many times but is worth repeating. Minimum tillage does not mean poor seedbed preparation . . . anyone who plants in a cloddy mess is asking for trouble.

The trick is to accomplish the desired results with as little time and effort as possible. So it boils down to what an old saw filer was talking about when he said, "Anybody can file a saw, but it takes judgment to know when to quit."

Probably every common tillage practice could have a place in a minimum program. However,

there are some that apply only in particular situations. For example, fall plowing is a means of letting winter freezing do part of the pulverization, but this is not desirable on soils that run together or erode badly. So here suggestions will be limited to 5 that have widespread application:

1. Disk heavy sod and cloddy soil before plowing to obtain a better job of plowing and save trips in fitting.
2. Tow a fitting tool such as a clod buster, plow packer, or spike tooth harrow behind the plow to break lumps, reduce air pockets, and partly smooth the surface.
3. Use dual tires to spread the weight of tractors and thereby

reduce packing and rutting. Much of the fitting for new seeding is for smoothing out tire tracks.

4. Haul a cultipacker in tandem behind a disk or harrow to get the desired surface firming and shallow placement of small granules.
5. Consider grain drill equipped with press wheels as a "must" in establishing new seedings. It's one of the best investments you can make.
6. For years we argued against rotary tillage, but now we are either converts or renegades! Anyone who has non-stony soil might well look into the possibility of shallow secondary tillage with a rotary tiller which is not allowed to rotate too fast.

★ AMCHEM PRODUCTS, INC., Ambler, Pennsylvania ★



FOR maximum growth and higher yields, control vegetation around the trees in your orchards. You can do an outstanding job—and save labor and production costs—if you use Amizine herbicide.

Just one Amizine application around the base of each tree kills existing weeds, and prevents new weed growth for most of the summer. Apply before fruit starts to form—follow label directions.

You'll find Amizine easy to use—non-flammable, odorless, non-corrosive to metal, and containing no arsenic. Marketed as an economical wettable powder concentrate.

So get more weed killing power for your money—get top kill, root kill and residual protection against weed regrowth. Get Amizine herbicide today from your supplier.



First Name in Herbicide Research

Personal farm experience.

(Continued from page 16)

was no better. My brother and I own a beet harvester. He also grows 80 acres; we would plan for this two-row harvester to handle up to 200 acres another year. — *Chris Hansen, Geneva, N.Y.*

FRUIT GROWING

We have 225 acres of fruit, 125 of apples. Apple plantings on our farm recently have been Idared (a cross of Jonathan and Wagener), Golden Delicious, and Greening. The first two are on Malling VII rootstocks for semi-dwarfing; the Greenings are on Malling XIII

because they were planted on a rather wet soil area and this rootstock seems to do as well as any under such conditions.

The Idared is the first to bloom and the last to bear, so it can have frost problems. However, this variety hangs on the trees very well and keeps well in storage.

Only seven percent of our apples go for fresh use, the rest for sauce. We pick sauce apples into twenty-bushel pallet boxes and use a front-end industrial loader on a farm tractor to handle them. The time is coming when we'll be using mechanical shakers to pick fruit for processing.

The same loader handles tart cherries, picked into tanks contain-

ing crushed ice and water... 1,000 pounds of cherries per tank. We also grow some pears and prunes.

The crew boss of our crew of migrants has been coming back to our farm since 1951, and we've been acquainted with him since 1942. Of the 40 people in the crew, a number have been working for us a good many seasons. — *Gordon Gardner, Gordell Farms, Williamson, New York*

CASH CROPPING

We grew 350 acres of corn last year... the 50 acres at home went for silage; the other 300 acres were for picking; and planted on rented

ground. Fertilization includes 100 pounds of actual nitrogen per acre applied as a liquid ahead of plowing, then 400 pounds of 5-20-20 per acre goes on at planting.

Varieties we've used most have been in the 105 to 110 day group in the past, but we're moving to earlier varieties... in the 90 to 100-day range. Blackbirds have been a real problem with most any variety. We lost as much as 10 percent of the crop to them in one field a few years ago.

In 1965, we planted 180 acres of red kidney beans... but weather was bad for both growing (too dry) and harvesting (too wet). No chemical defoliant was used on our crop in 1965, but we like to use it on a big crop ten days before frost. The year it was used, it was applied from an airplane and did a good job.

Our operation also includes some livestock... 100 beef animals and 110 dairy, including 60 cows milking. The children also have horses and sheep... the latter Polled Dorset. Twenty ewes have averaged a 150 percent lamb crop twice a year... with lambing periods of January-February, and again in September-October. — *Harold Lockwood, Portageville, New York*

The dairy revolution

(Continued from page 14)

in New York will be reduced by 50 percent in the next twenty years... and the total land they farm will go down at least 25 percent.

The next question is, who goes and what land goes? Surely change can be accomplished much more smoothly if we can predict these things accurately; if, in fact, the people concerned can learn to make such predictions themselves and act before they waste a lot of resources and effort.

Guidelines

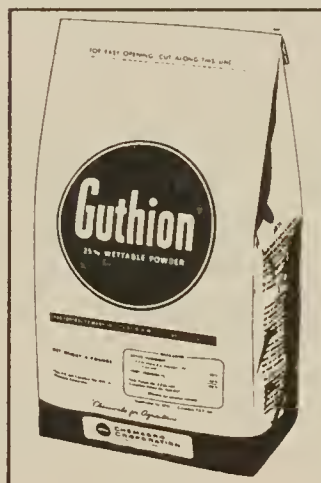
We have learned some things about how revolutions in agriculture work themselves out. It is clear that if we are trying to figure out the likelihood that farms in a particular area will survive this dairy revolution we need to look at:

1. The nature of the land.
2. The present condition of buildings, lime levels, field sizes, and other man-made items of real estate.
3. The current skill inventory of farmers and the speed with which the new skills needed in the revolution can be transmitted to them or developed by them.
4. The current equity position of farmers, and the ability and willingness of bankers to make more credit available.
5. A variety of miscellaneous factors, such as market arrangements, rates of urban penetration, and the alternative opportunities available to those who might leave farming.
6. And last but not least, the degree to which men are dedicated to farming and are willing to work hard and take risks to stay in it.

American Agriculturist, April, 1966

Guthion is still the best fruit insecticide

In the past six years, Guthion has become the favorite with growers in all parts of the country. One of the reasons is performance. Guthion has proven to be a dependable, broad-spectrum insecticide. Guthion treatment helps provide a better finish... and at the same time, often results in significantly higher yields. Guthion can be used from



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Golden Delicious a Favorite — Research at Yakima, Washington, has disclosed that the Golden Delicious is the apple variety planted most. A medium-sized Golden Delicious apple sells at top prices, children show a preference for it, and the fruit is good both fresh and for apple pies.

Poison Ivy Control — Ammonium Sulfamate (Ammate X) has been given clearance by the Pesticide Registration Division of the USDA for poison ivy control in apple and pear orchards. Growers are urged to follow directions closely. The tolerance limit is 5.0 ppm. and the maximum dosage is 54.0 lbs. per 100 gallons of water. Apply as a spray to poison ivy in full leaf; keep off tree foliage and fruit. Make only one application per season.

Heaters Help — Heaters placed under apple trees on a frosty spring night raised temperatures from two to five degrees. Tests with three types of heaters containing solid petroleum were carried out in May, 1965, at orchards near Ithaca and New Paltz, New York, by two Cornell pomologists. One heater in particular, foil-wrapped on the outside, was easier to light, burned more evenly, and seemed to provide more heat . . . also showed no signs of deterioration after standing in the orchard for several months. Additional tests are being made.

Scoring Apple Trees — In Illinois young Red Delicious apple trees were scored in their third year by cutting with a knife through the bark of the trunk about ten days after full bloom. The technique produced earlier bearing, and seemed to improve the shape of the trees.

Six New Fruits — Two apricots, a nectarine, a red and black raspberry, and a strawberry have been named at the Geneva Experiment Station.

The two apricot varieties, outstanding for their hardiness and good fruit quality, are Alfred and Farmingdale. The Morton nectarine has the same good qualities, with a sweet rich flavor that makes it the best early nectarine variety tested at the Station.

Then there is the Hilton red raspberry, vigorous and productive, the Huron black raspberry, and the Garnet strawberry. Trees, plants and information can be had from the New York State Fruit Testing Association, Geneva Experiment Station, Geneva, New York.

New Apple Market — The door has been opened for shipping New York State apples into the Far West, and the New York State Department of Agriculture and Markets has set up the necessary certification procedures.

Twelve cartons of New York's
American Agriculturist, April, 1966

"controlled atmosphere" McIntosh apples arrived in Los Angeles by air express on May 5, 1960. It was the first time the coast state had admitted New York apples in 35 years for fear of the apple maggot and plum curculio. Now apples that have been held in a licensed cold storage establishment for a continuous period of 40 days or more, at temperatures no higher than 32 degrees, are also permitted to enter California.

OLD VARIETIES

EVER WONDERED where you could get scions or buds of such old favorite apple varieties as Sweet Bough, Golden Russet,

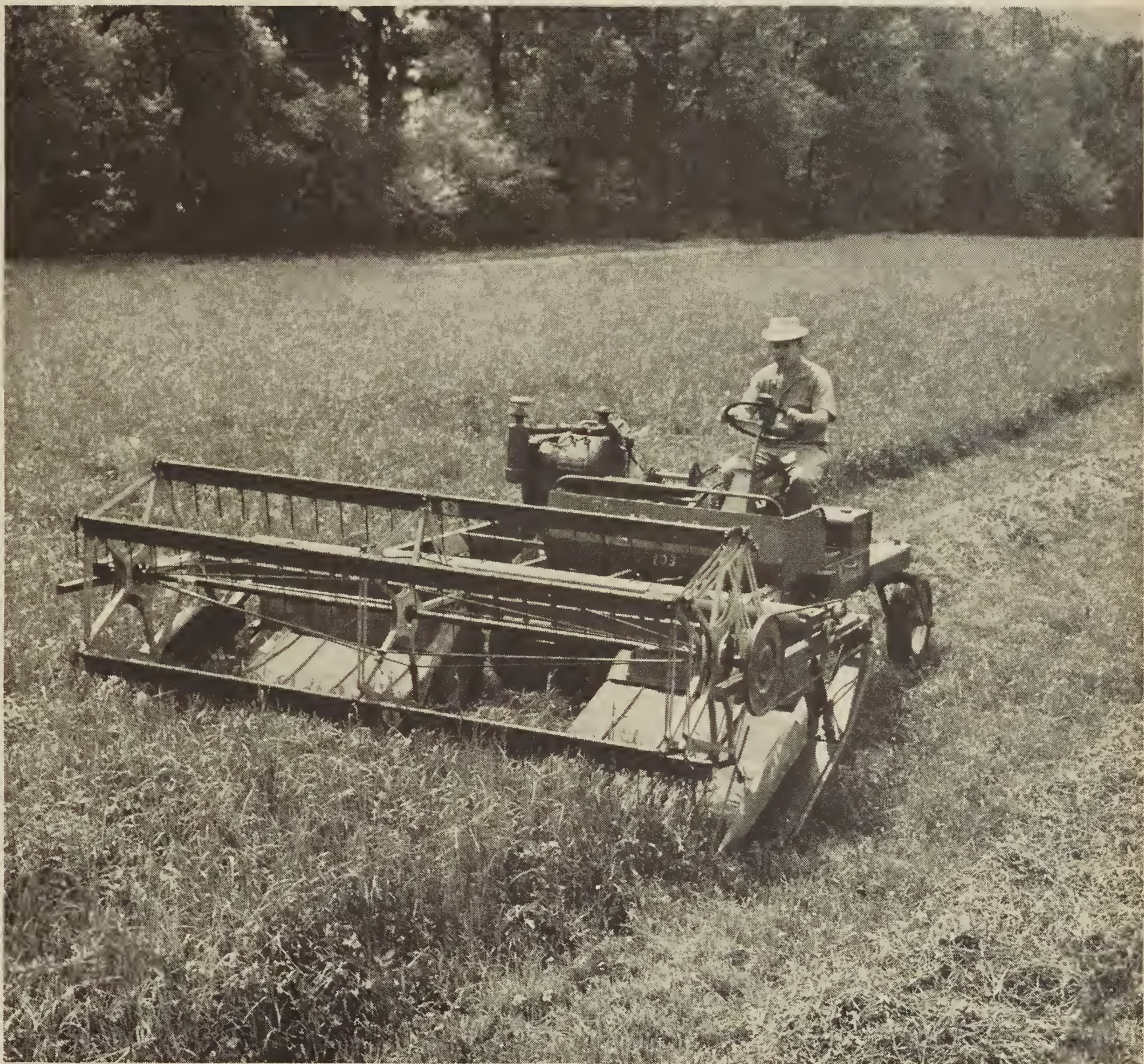
Pumpkin Sweet, and Wolf River? The Worcester County Horticultural Society, 30 Elm Street, Worcester, Massachusetts 01608 has a list of 58 old apple varieties for which they have scions for grafting in April, or buds for budding in August. The organization does not have trees for sale.

The Society comments on its order blank that the following nurseries have a limited supply of some of the old apple varieties: Baum's Nursery, R.D. 4, New Fairfield, Conn.; Eben Nursery, R.F.D. 1, Potsdam, N.Y.; Converse Nursery Co., Amherst, N.H.; Henry Leuthardt Nursery, King Street, Port Chester, N.Y.; Wheelock Wilson Nursery, Marshalltown, Iowa; Wyman's Framing-

ham Nursery, Framingham, Massachusetts.

For those who long to taste again an apple remembered from their youth, the Society will have a limited quantity of fruit available beginning in October. You can either get your order in early for the '66 crop, or save this address and make contact next fall. In any case, better write ahead of time to find out what varieties are likely to be available for shipment.

The Society will send information to anyone interested in old apple varieties. This program has been in operation for thirteen years, and thousands of scions have been sent to all sections of the United States . . . as well as to Mexico, Canada, and Europe.



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PESTICIDE POSTING

Professor James E. Dewey, Cornell's Extension program leader in the field of chemicals and pesticides, reports that his shop has been working hard on doing a better job of controlling pests and at the same time protecting the health of the consumer.

These efforts have included a development of a rather elaborate spray record sheet for growers, as well as reviewing approximately 100 Extension bulletins to be sure they are up to date with pesticide or chemical recommendations.

In addition, a series of leaflets has been prepared for the lawn and garden customers concerning safe handling of pesticides... as well as information on the best way to control pests. A TV film strip has been completed on the same topic.

Also a series of animated cartoons for television use is being produced, and a thirteen-minute film entitled “The Need for Pest Control” is designed to help the general public understand both the problems and the potential associated with the use of pesticides.

The College of Agriculture thus is serving growers faced with the necessity of protecting crops from pests, serving nonfarmers with information on the control of pests on home grounds and in the home... as well as helping urban people to understand both the danger and the benefits inherent in the use of agricultural pesticides.

THEY'RE BLOWING OUR HORN!

Congressman Harold Cooley of North Carolina, chairman of the House Agriculture Committee, saluted the rural press recently. He said, “I want to pay tribute to the enduring dedication of agricultural magazines, rural papers and local newspapers to the science of American farming.... The constant flow of information from the laboratory through the publisher to the producer on the farm has contributed vitally to the abundance of food and fiber that has blessed our Nation.... Our rural press must be given every encouragement to continue this invaluable service.”

At the same time, he inserted into the Congressional Record comments by Secretary of Agriculture Freeman, as follows: “The uniquely valuable service which the members of the Agricultural Publishers Association have rendered American agriculture for more than half a century is both recognized and appreciated.”

The National Dairy Council Board of Directors recently adopted a resolution of appreciation to publishers and editors of the farm press for “their assistance in advancing the objectives and services of the National Dairy Council and its nationwide network of affiliated units.”

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American Agriculturist, April, 1966

FIRST CLASS MAIL



APPLES

I read with interest Mr. Norman S. Gould's article on "Apples of Yesteryear." He is so right, the old stand-by apples are hard to come by today.

Since raising apples is a hobby of mine (variety, not quantity), I could not resist commenting on his article. My 23 varieties include several of those mentioned plus a few others: Golden Grimes, Red Astrachan, Northern Spy, Baldwin, Greening, Snow, Russett, Cortland, Wealthy, Jonathan, Spitzenburg, Starkling Earliest, Winesap, Tolman Sweet, King, 20 Ounce, Banana Apple, Gravenstein, Red Rome, Yellow Delicious, Red Delicious, McIntosh.

Trying to sell a Russett today would be like trying to sell an Eskimo a refrigerator. Each year without fail I get a few calls from people who know the Russett saying that they heard that I had Russett apples and could I spare a few, just a small basket. These people are strangers to me, but it's gratifying to fulfill their request. — *George Weissgerber, 160 Brompton Rd., Williamsville, N.Y. 14221.*

A GRATEFUL FARMER

He made me a man who could till the soil from dawn to dusk each day. He made me a man with calloused hands, with a face he furrowed, burned and tanned. He gave me the strength to guide a plow or to take an axe in hand. Then he gave me a wife to cherish and love, and He sent me a son from Heaven above. We built our home on God's good land with stone from the fields placed there by His hand.

He promised me not that each day I'd succeed, and He promised me not my wounds would not bleed. Yet He gave me compassion and the power to share the fruits of my labor with a friend in despair. No greater reward could God grant me than that which I now possess, when the breath of life He gave me, and placed me on His land, and made me just a simple man, a man who tills God's land. — *Arthur J. Johns, Carthage, New York*

BIGNESS

I believe in the family farm. I think it can be an economically-sound unit and as such will endure. Of course, the father's 15 cow — \$10,000 operation is today the son's 60 cow-\$70,000 one . . . but it is still a family affair.

I admit to an innate distrust of bigness in which envy plays no part, so it must be a concern over individuality and the dangers of domination. I accept the central

school, the merger of the downtown bank with the big city institution; the union of our church with another; the absorption of our farm co-ops into larger combines. These I accept because I must, but with some apprehension and misgiving.

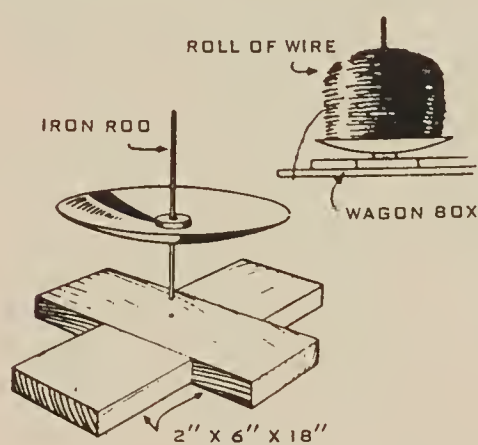
Yes, I resent illegitimate stand-outs, like the moneyed man who purchased a large acreage in the Connecticut valley a number of years ago. He set up a huge loose housing establishment supposed to be a model of streamlined efficiency producing milk and hamburger. This was the New England farm of the future, exalted and glorified by some of the agricultural press at the time, the implication being that the best family farmers were sadly lacking in ability, vision, and foresight. Well, the outfit successfully produced hamburger but not milk and soon faded out (unnoticed by the press)!

But we family farmers applaud and honor men of honest achievement . . . witness our DHIA leaders; the adopter of free stall housing; the inventor of hybrid corn . . . anyone who demonstrates the better way. — *Alfred P. Staebner, Lebanon, Conn.*

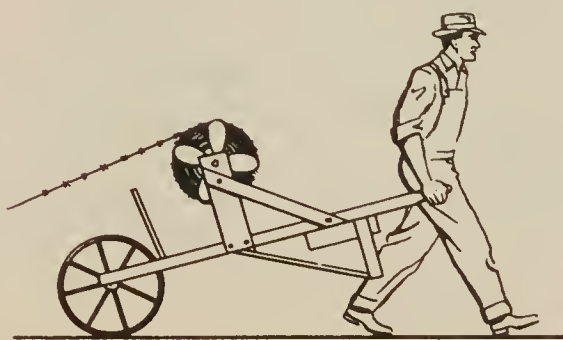
Mend your fences

(Continued from page 6)

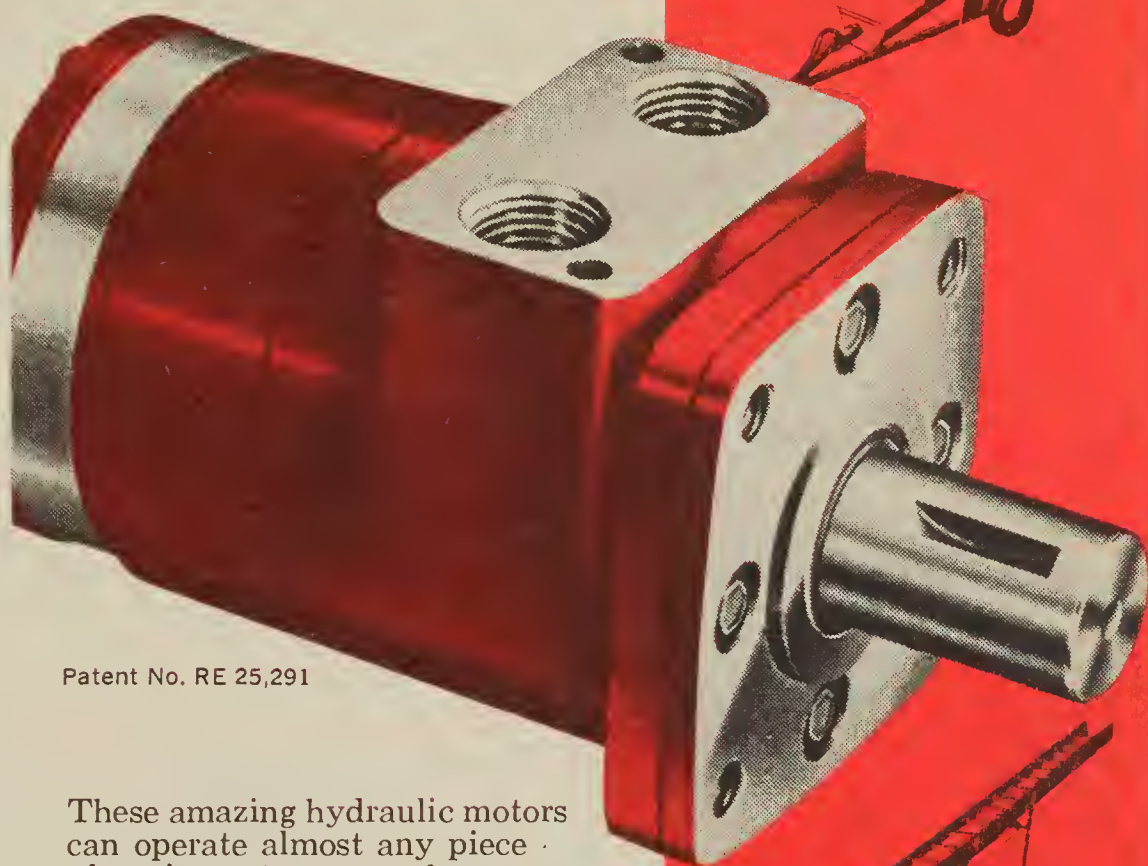
a piece of one-inch rod or 3/4-inch pipe are the only materials required to make an unroller for barbed wire. Make a cross of the two pieces of 2 x 6, drill a hole in the center to take the rod or pipe, and assemble.



5. To make the one-man barbed wire handler shown, make the framework of 2 x 4's spaced about 12 inches apart, and the cross pieces from 1-inch or 2-inch boards. Drill and insert holes in the frame for half-inch gas pipe to carry the reel of wire and for the handle. Suitable bracing is shown. Be sure to insert the barbed wire reel so the wire will unroll from the top as you pull.



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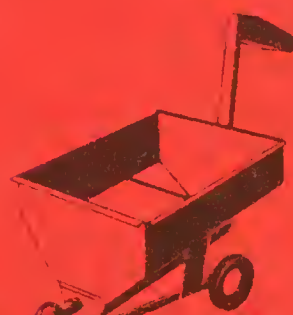
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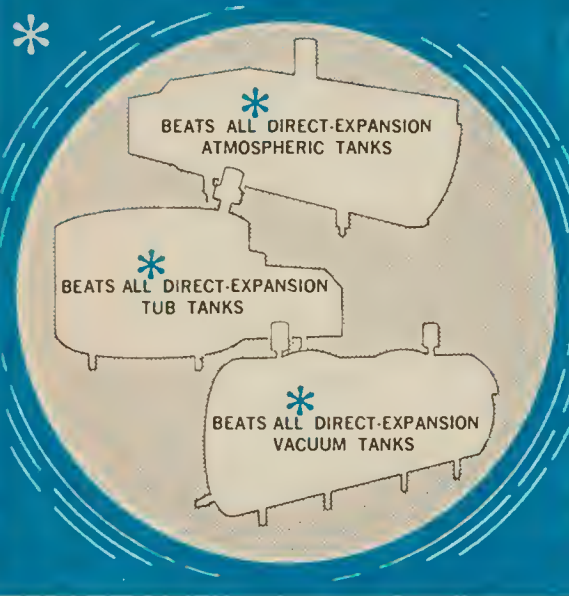
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Allen MacGregor built 60 free stalls in a barn which is open facing the feeding area where silage is augered to the feed bunks.

These dairymen feed HEAVY ON SILAGE

by Bob Cudworth

THREE DAIRYMEN in New York's Ontario County... all having barns with free stalls and milking parlors... are finding they can get good production feeding all silage and no hay as roughage. They include Allen MacGregor, Rushville, with 43 milkers; Peter Martens, Stanley, 200 milkers; and Yautzy Brothers, Stanley, 96 cows.

Allen MacGregor

Allen MacGregor has used a double-4 milking parlor with pipeline for four years. He fed some hay the first year, but since then has concentrated on hay-crop silage and corn silage as the only roughage.

He points out, "I bought a chopper rather than a baler... I couldn't really afford both with a 43-cow operation... and so I have gone with silage and haylage rather than putting heavy emphasis on baled hay.

"I hire a neighbor to bale my alfalfa-timothy hay that I feed to calves and young stock. This leaves me free to do other field work. Of course, with the chopper I have very little worry about the weather. I can chop and fill silo 'most any time."

Allen put in 60 free stalls in a shed adjacent to his outdoor feed-

ing area, which has a feed bunk, auger-fed from the silo. He has room for 20 more free stalls.

He fills the silo with hay crop silage in the spring and feeds it out during the summer. Then in the fall he puts in corn silage and feeds it all winter.

Allen had 48 acres of corn in 1965, but because of excessively dry weather and resulting low yields, he bought 20 more acres of corn. He uses shelled corn in his grain ration, along with oats and a 40 percent protein supplement. Cows are fed about 8 pounds of this grain ration in the milking parlor. Allen and a hired man handle the milking with four machines.

Allen keeps silage in front of the cows all the time... some 3 to 3½ bunks-full each day. He doesn't believe the cows suffer any setbacks when the switch is made from hay crop silage to corn silage, and vice versa.

"Our herd average is approaching 14,000 pounds; we're saving a lot of labor with our present feeding set-up, and I feel it is the best system for us to use.

"We'll continue our all-silage feeding as we shoot for continued labor-saving to help reach our goal of 40 cows and 500,000 pounds of milk per man."

Peter Martens

Peter Martens built his free stall barn three years ago, and fed some hay along with silage the first year. Since then he has switched to all-silage... corn silage through late fall and winter, then to "greenchop," and hay crop silage until fall. In 1965, Martens had less corn silage than usual, partly due to an auto accident injury which kept him from getting in as much silage as he would have liked.

He normally feeds corn silage twice a day in the feed bunks with ground corn at the rate of 20 pounds per cow on top the silage. But to stretch his supply last winter, he fed corn silage once a day,

(Continued on next page)



Peter Martens has switched almost completely to silage feeding for his 200 milkers.

then ground hay and corn in a hammer mill for the other feeding. There are normally 250 acres planted to corn at the Martens farm. At harvest, the silage is put into a large pit silo which will hold some 3,000 tons. Silage is put in fast and covered with plastic.

Pit To Upright

Then when the 30 x 60 upright silo . . . with 1500 ton capacity . . . is ready, a two-yard scoop moves silage from the pit to the upright. Last fall it took 17 hours to fill the tower silo in this manner.

Peter has a double-8 milking parlor where two men each handle four milking machine units. He feeds a 20 percent-protein pelleted ration, about 20 pounds per cow. He finds that when he feeds too much grain corn in the bunks cows tend to cut down on their grain in the feeding parlor. When this happens he worries about cows being "shorted" on protein.

The Martens herd produces some four tons of milk daily. Until his accident, Martens and his three hired men were handling 650,000 pounds of milk yearly per man. The injury, however, forced Peter to hire another man.

When Peter had his cows in a stanchion barn, production averaged 16,000 pounds per cow. Production dropped with the switch to the free stalls, milking parlor and larger herd. But he is culling heavily, and production has climbed to the 14,000 average.

Peter has three young bulls running with the herd and says he has little trouble getting his cows bred. He raises no young stock, buys his replacements.

Yautzy Brothers

The Yautzy Brothers . . . Martin and Charles . . . have had their new free stall and milking parlor operation for less than a year.

They believe they can do a good job with hay. A poor hay crop because of last summer's exceedingly dry year, though, forced the decision to feed silage as practically the only roughage. Milk production under the new setup has been averaging 14,000 pounds per cow for 96 cows.

The Yautzy program is to start haylage in summer and feed it until November 1. Then it's corn silage from fall to spring . . . augered to feed bunks from their two glass-lined steel silos. A few bales of dry hay are fed each day to stimulate rumen action.

Martin and Charles give their cows about 80 pounds of corn silage a day, and say they noticed no drop-off in production when feeding was switched gradually from haylage to corn silage.

High moisture corn . . . about 12 pounds per cow daily . . . is fed with the silage. This year they had to buy the corn for shelling because the dry summer held down the yields on their 135 acres of corn.

To balance their roughage, the Yautzy's are feeding a 28 percent protein pelleted concentrate in the milking parlor . . . about 7 pounds per cow daily. In addition, they

feed 30 pounds of dicalcium and salt per 100 cows and about one pound of Vitamin A per cow daily. The mineral supplement compensates for a mineral deficiency in the silage, and the Vitamin A is to help overcome an excess nitrate problem in their cows . . . presumably due to corn that was unable to make full use of heavy fertilization in a dry year.

Before building their new setup the Yautzys milked in two stanchion barns, 20 cows in one and 17 in the other. Now they have 96 cows in a barn with 106 free stalls, and have had as many as 115 cows. Two men, each handling four units, can do the milking in their double-4 milking parlor in about two hours.



The Yautzy Brothers . . . Charles, at left, and Martin . . . find they get good production with silage, but still have leanings toward the feeding performance they get with hay.

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ANOTHER POPULATION EXPLOSION

by Amos Kirby
New Jersey Editor



A POPULATION EXPLOSION is taking place in New Jersey that is not centered around any increase in human population. The plant population explosion is showing up in many places.

The trend is to increase the number of plants per acre; the objective to produce larger yields . . . and in some instances to develop a more uniform size. It shows up in

peach orchards, corn and soybean fields, as well as in tomatoes.

Merle V. Adams, associate specialist in soils and crops, is a booster for closer rows in corn and soybeans. Today, practically all corn seed is planted 10 to 15 inches apart in the row . . . and the rows down to 38 inches.

But with a row interval of 38 inches, irrigation must be consider-

ed. Mr. Adams feels that little is to be gained at this stage with rows spaced closer than 36 to 38 inches.

Soybeans

Larger yields of soybeans can be got by spacing rows 20 to 28 inches in comparison with 35 to 40 inches. The better growers are consistently growing 35 to 40 bushels per acre. But Dr. John C. Anderson of the Department of Soils and Crops reports that a new variety developed (Adelphia) has hit the 50-bushel mark. George Aaronson, Bordentown, has reported a yield of 50 bushels per acre of soybeans on a 50-acre area planted in 36-inch rows. Also good news is that the new variety

resists pod and stem blight.

Tomatoes

There is a growing interest in seeding tomatoes directly in the field as against the present method of using Southern plants. Robert Gardner, Salem County agricultural agent (in cooperation with the Agricultural College) has been experimenting with direct seeding. Martin Decker of the College of Agriculture reports that growers in California have been using direct seeding and getting high yields with as many as 22,000 plants per acre . . . in single rows with 6 to 9 inches between plants. Yields were 24 tons per acre.

There is a tendency, also, to increase plant population of Southern plants from about 2,800 to over 4,000 . . . some being stepped up to 5,000 per acre.

Peach Trees

Normally 100 peach trees are planted per acre, but some growers in the Glassboro area have added up to 50 trees more per acre so as to increase yields when the trees are young. Yields are increased during the first three to five years, and when competition for food and water begins, the planting is thinned.

Asparagus

In asparagus, spacing has been shortened from 15 to 18 inches down to 6 to 8 inches. As with the peaches, more plants per acre at planting time provide larger yield during the first years, and if some plants die there is not the sharp reduction in yields that has been experienced on many farms.

High-Density Poultry

William Roberts, Extension engineer, is working on problems connected with high density flocks, such as dust, pollution, temperatures, and costs of remodeling from one system to another.

Samuel Rubin, Atlantic County operator of a cage layer system, claims that one of the problems in a high-density system is the mixing of birds of different ages in the same house . . . one of his problems in this connection has been the control of disease. Meyer Berkowitz, Vineland, who has been working with a number of the high-density systems, reports that it costs about \$1.25 per bird to convert an old building to a modern automated laying house.

The pollution problem is centered around dust in the air and waste disposal. The waste disposal problem is still not solved to the satisfaction of either operators or nearby residents.

POULTRY CONTRACTING

New Jersey poultrymen are debating the pros and cons of pullet and egg contracting. Louis Shiabie, hatcheryman at Shiloh, has turned egg production over to other poultrymen on a contract basis, thus providing egg producers with a guaranteed market.

Growing pullets under contract is increasing. Those who are con-

(Continued on page 27)

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tracting to produce pullets, while assured of a market at a guaranteed price, must be exceptionally good producers, have a super-sanitation program, and be well financed.

Albert Watson, Turnersville, largest turkey grower in the State (who both grows and contracts) believes that contracting is here to stay.

THE DAIRY FRONT

The slogan for dairymen in 1966 is "Management" . . . and management ranges from weed control to high production. Donald Shallock, weed specialist in the State Extension Service, feels that the coming season finds one of the finest arrays of chemicals to make the weed control future brighter.

Merle Adams, crop specialist at the College, places management ahead of irrigation in building up yields. Research at the College has made some of the staff doubtful whether irrigation has a place in the production of forage crops. In Mr. Adams' opinion, the two major items are liming and fertilization to match soil needs and crop demands.

Alfalfa growers have had excellent results with irrigation where water was supplied in sufficient amount. Most failures came from not applying enough water to reach down to the bottom of the root zone.

Irrigation

Going to irrigate this year? The first step is to find out if one has an available source. Down in Gloucester County, according to the agricultural agent, they have about 500 ponds and irrigation has proved to be a worthwhile investment.

Mark Clark, Monmouth County agricultural agent, is a firm advocate of irrigation on white potatoes. Without it there would have been some very light crops last year. Irrigation has proved to be a very good crop insurance regardless of its cost.

AMERICAN LEGION 4-H AWARD

Glenn T. Eachus (17) of Mullica Hill, New Jersey, was selected by the Gloucester County American Legion for their Outstanding 4-H Club Boy Award. This Legion was the first in the United States to

sponsor a 4-H project, based on their belief that the strength and future of our country will depend on the mental and spiritual development of its youth.

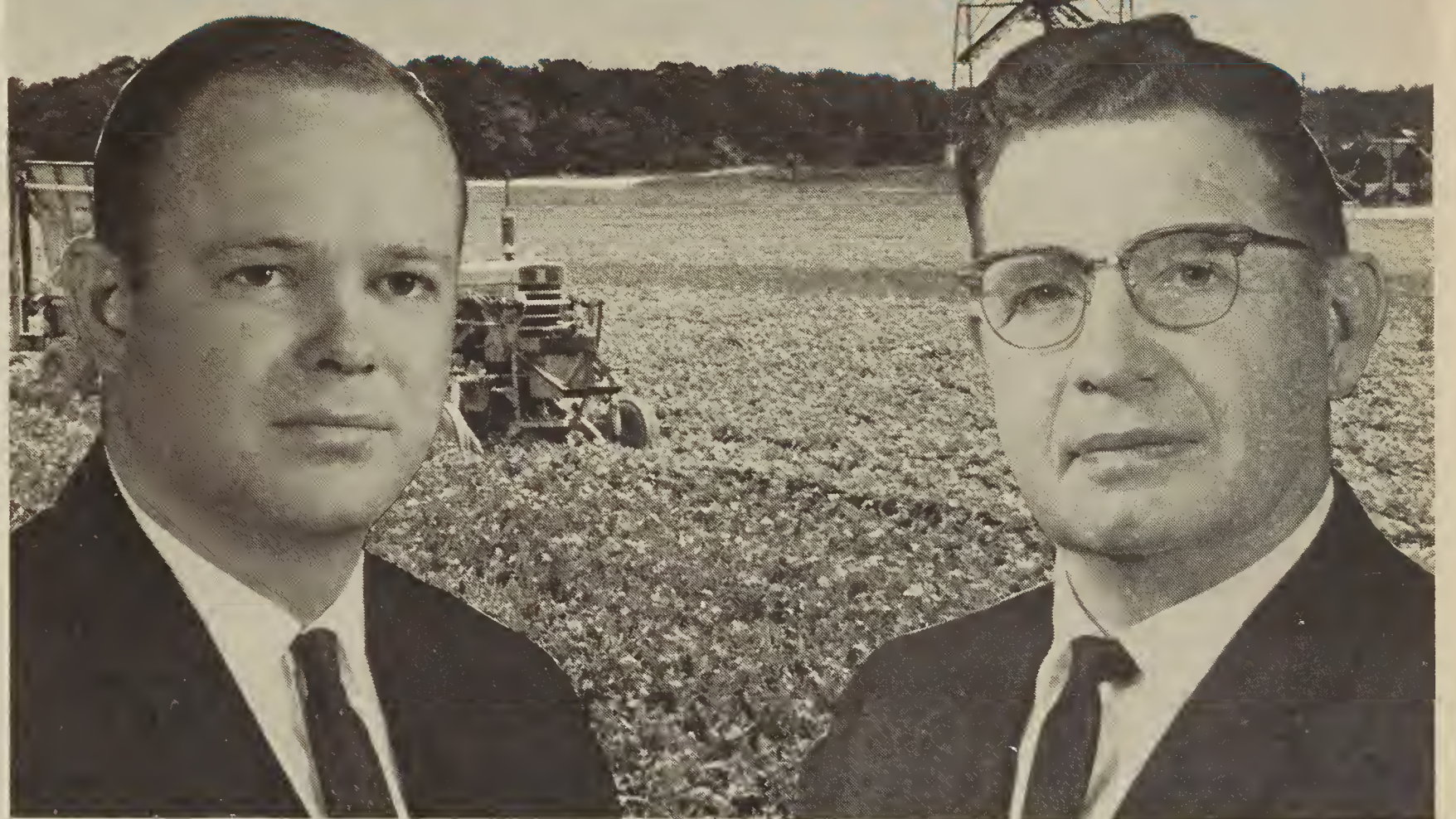
Glenn's main project is dairy cattle, which has earned him many awards at county fairs. Other projects include the care and management of horses, gladiolus growing, gardening, and tractor operation and maintenance. He helps with the operation of the family dairy farm, whose 140-head herd is the largest in the county, and one of the largest in the State on a strictly family basis.

Runners-up in the competition were Joseph C. Schlump, Jr., Mickleton, and Leo F. Selb, Jr., Mullica Hill.

Glenn Eachus shows his prize-winning 7-year-old Janet Joy Vendor to members of the Legion 4-H Award Committee Len Hammond (left) and County Commander Harry Wiemer.



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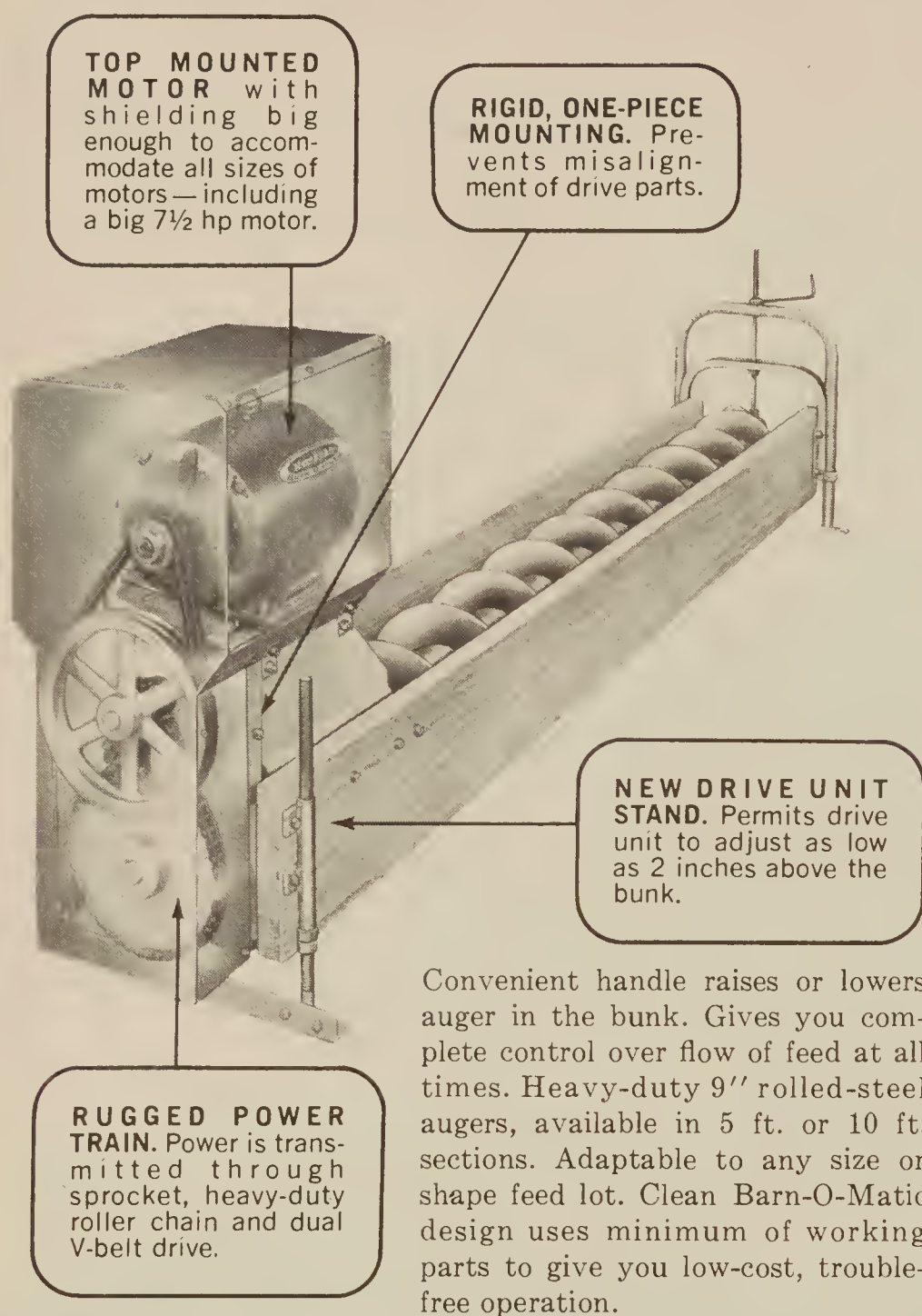
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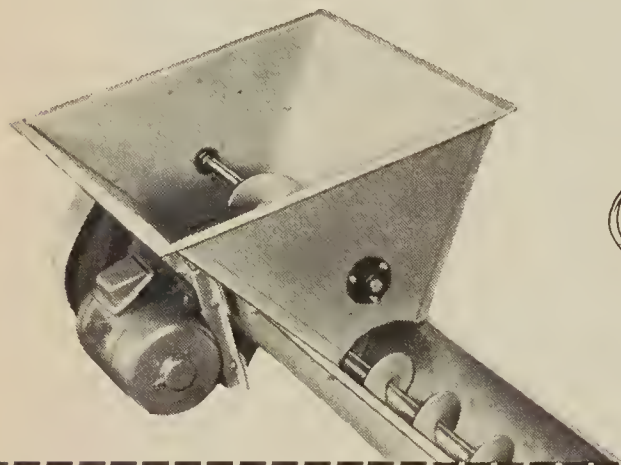
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American Agriculturist, April, 1966

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POINTS OF VIEW ON MILK

Editor's Note — I received a letter the other day from a man in Georgia, commenting on the dairy base plan there (see "Class I Base Plan"). Wanting to know more, I wrote to the University of Georgia for a review of information sent by Mr. Allen... receiving a letter signed jointly by an Extension Economist and an Extension Dairy Marketing Specialist, printed here under "Raises Questions."

CLASS I BASE PLAN

I am writing you about the dairy base plan system as it operates in Georgia. Recently, I heard of a 180-cow dairy farm available for rent.

Along with a partner I went to look it over, and found that the herd was under quarantine for brucellosis. He was permitted to sell milk, but his cows could only be sold for beef.

There was a 30-cow milking barn with pipeline milker and bulk tank, four large silos, and a feed bunk in a paved yard. The farm consisted of 400 acres of good level land, mostly with a good stand of coastal bermuda grass. The rent he asked seemed reasonable and we thought we would be able to finance the deal.

But the dairy business operates under a quota system in Georgia, and this farm had a daily quota of 2500 pounds. He had already been offered \$25 per pound for his base by the owner of another large farm some distance away.

According to my arithmetic, this comes to \$87,500... that stopped us because we could not possibly finance it. We found that the banks consider this quota something nice to have, but not worth much in the way of collateral!

I began to think about this and wondered how come this man (along with a few others) had the sole right to sell milk at a special profitable price. Was it experience? Evidently not; I was selling milk when he was born. Was it efficiency? No, this was average or less. Better milk? No, his milk was suspect because of brucellosis quarantine.

Apparently the only reason was that he happened to be making and selling milk at a certain place on a certain date, and had been doing so for three previous years.

Now, who gave these men this

special privilege, which amounted in this individual's case to a bonus of \$87,500? I have heard this was set up by the Department of Farms and Markets of the State with the approval of the USDA. This deal puts an intolerable burden on the would-be dairyman.

Suppose I had bought this man's quota for cash or debt, the U.S. government decides to try to feed most of the people of the world, and all controls on production taken off. I would have bought something worth about as much as a dry hole in an oil field!

The overall picture is that the small producer is quitting; he hasn't the money to buy more quotas and expand, so he sells his right to sell milk to a big producer. The number of farmers selling milk in Georgia has dropped faster percentagewise than it has in New York.

Now suppose I think, "Well, I don't have to make milk; I'll try something else." Cotton, maybe? No... can't do that because I haven't any cotton allotment. Peanuts? Same thing... no allotment. Tobacco? Acreage control here too, also on the pounds you can produce. Oh heck! I'll go over to the factory and get a job... they pay pretty good wages. But then I recall that I am over 45 and they are not hiring anyone over that age!

Do you suppose that somewhere back along the road we took the wrong fork? Maybe I should go back to that county in New York where I used to live. They have something going up there I think called Economic Opportunity, or something like that. — *Edgar Poe Allen, Sr., Townsend, Georgia*

RAISES QUESTIONS

If only one cow in a herd has brucellosis, then the entire herd would be put under quarantine. In order to end the quarantine the herd must have negative tests on two consecutive tests sixty days apart. During the quarantine period the dairyman would be permitted to sell milk from the herd. However, he must also take steps immediately to eliminate the brucellosis from the herd.

The quoted amount offered per pound for the milk base on this farm seems too high. In the past some milk base in Georgia has sold for as much as \$25 per pound. Now, however, the going price is considerably below this. At the present time the going price is more in the range of \$10 to \$15 per pound. There are two major reasons for this lower price for milk base, including the fact that the base may not be in effect indefinitely, and the fact that the base is now based on one year rather than a three-year average.

The statement that this man, along with a few others, had the sole right to sell milk at a special profitable price is not correct. Any

(Continued on next page)



"Actually, Washington is like a beehive... the honey pours out, but if you look closely you'll find out you're getting stung."

GARDEN PLANNING

HAVE YOU been dreaming over the garden catalogs?

A big part of gardening fun is to try something new each year; perhaps a vegetable you haven't grown before, or a new variety of an old favorite. At any rate, Professor Philip A. Minges of the College of Agriculture at Cornell has some suggestions of varieties for the home gardener.

Tomatoes, of course. What would we do without them for salads and just plain good eating? If space is limited, half a dozen plants will give enough for everyday use for an average family.

Speaking of having room, where it is necessary to plant tomatoes on the same spot each year, plan for varieties that are resistant to fusarium and verticillium wilts. These include Galaxy (early-maturing and resistant to verticillium wilt); Campbell 1327; Heinz 1350; and Superman (all mid-season varieties resistant to both wilts). For a late variety resistant to fusarium wilt try Manalucie. Inci-

(Continued from page 28)

person can go into the dairy business in Georgia and produce and distribute his own milk without milk base as long as he meets the state health requirements. The base is required for a producer who sells his milk to a plant. Since base is bought and sold, any new prospective dairyman can usually find base to purchase in order to get into the dairy business.

The Milk Control Program was set up through a Milk Control Act of the State Legislature. The Milk Commission which administers the Milk Control Act is a part of the State Department of Agriculture. It should also be pointed out that we have no Federal Milk Marketing Orders in the State of Georgia. The entire milk marketing system is under the State law.

The statement in the letter that the base plan puts an intolerable burden on the would-be dairyman is subject to question. As we pointed out above, base is bought and sold and in most cases a would-be dairyman can find base for sale. It is true that an additional capital investment would be required to purchase the base. However, the higher price received for milk could certainly justify the additional investment to purchase the milk base. The blend price paid all Georgia producers for Grade A milk in 1965 was \$6.06 per cwt.

The statement that the small producer is quitting because he hasn't the money to buy more quotas is not completely accurate. It is true that the number of dairies in Georgia is decreasing. However, the ones going out are not necessarily small producers. The ones going out are the least efficient regardless of size. The base system has actually helped to keep many small milk producers in the dairy business by insuring them a profitable price for their milk.

American Agriculturist, April, 1966

dentally, Superman lives up to the name and develops a large plant, so stake it.

Where no wilt problem exists, good early varieties are Gardener and Fireball. The yellow-fruited Sunray, the hybrid Manhattan, and Glamour are mid-season varieties; and Big Boy comes along later.

Sweet Corn

Main season varieties include Gold Cup, Golden Cross Bantam, Seneca Chief, and Wonderful. But if you want to rush the season a bit, try the early-maturing Seneca Explorer, Spring Gold, or Northern Belle.

Two mid-season varieties... Butter-and-Sugar and Honey-and-Cream... have mixed yellow and white kernels, while Silver Queen is an all-white... but late-maturing variety which must be planted by June 1 in short-season areas.

Gold Nugget, a new winter squash, will prove a boon to gardeners with limited space. It grows in a bush... more like summer squash... instead of sending runners all over the garden. It's a two-pound squash with bright orange skin and flesh. And there are the old reliables... Butternut, Buttercup, Golden Delicious, and Table Queen.

If you like a yellow summer squash try Seneca Prolific Hybrid and Seneca Baby Crookneck. Zucchini Hybrid is a green-skinned summer variety, and White Bush Scallop is pure white, saucer-shaped, and as the name implies, scalloped.

Pods and All

Many gardeners have already tried peas that are eaten pods and all. There is a newer variety called Round Pod Sugar that ripens slightly later than the variety Dwarf Gray Sugar. When picked at the proper stage of maturity both are very good and freezable. But remember, they grow about three feet tall, and must have a trellis or chicken wire fence to grow on.

For cucumbers the summer long, plant a hill of Challenger and one or two of Tablegreen. Challenger ripens first; and Tablegreen has a long harvest season, is tolerant of downy mildew, and resistant to mosaic. Two other good varieties... but not disease resistant... are Ashley and Marketer.

Watermelons, Too

Suitable for the Northeast season are Summer Festival (reddish pink flesh); Sugar Baby, ripening later and with orange-red flesh; and Honey Cream, a good yellow variety.

Varities of rhubarb recommended include Canada Red; Ruby (long-stemmed and good color but small yield); MacDonald; German Wine and Victoria (both produce large stems and large yields).

Good gardening!

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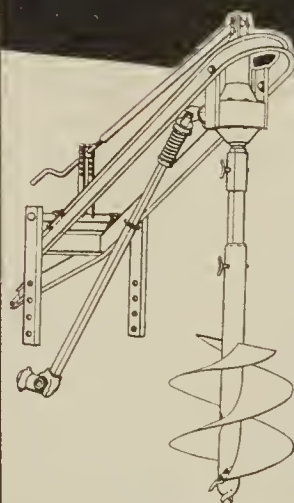
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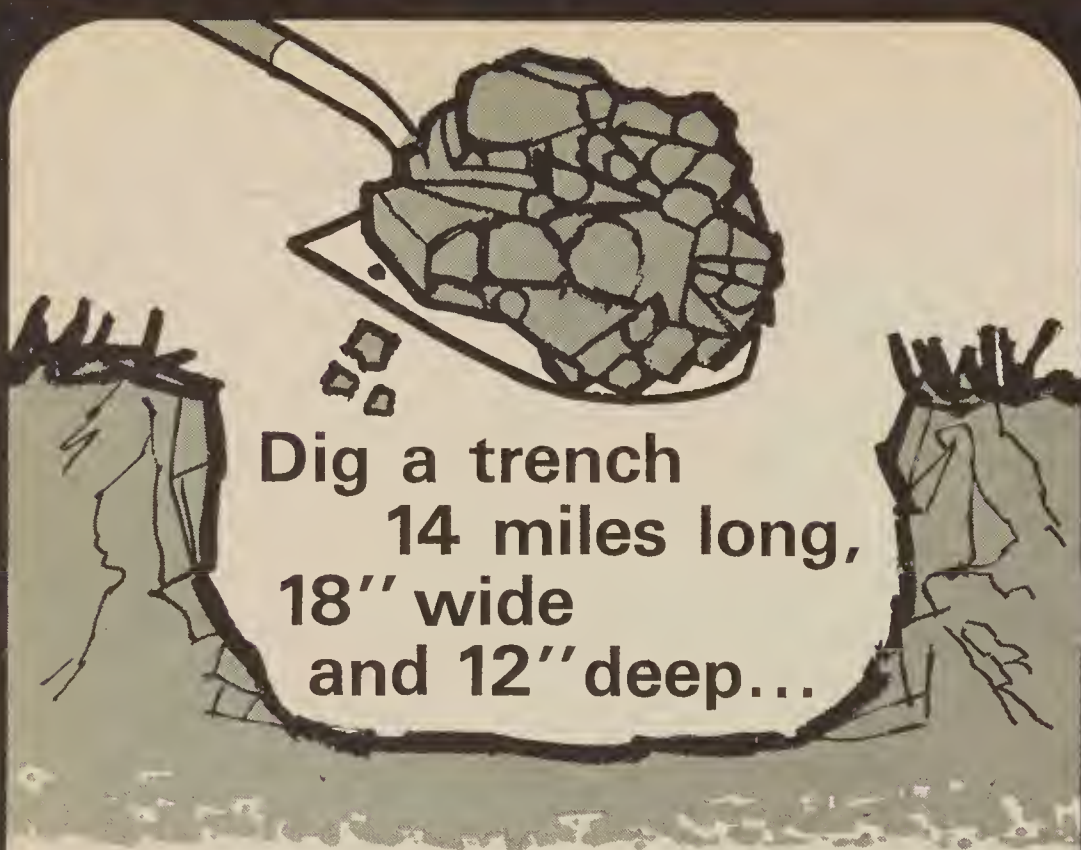


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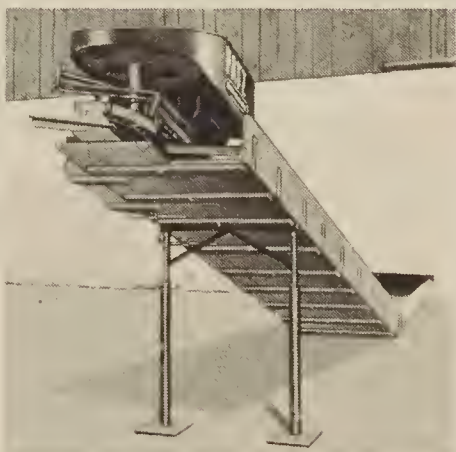
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A TWO-FOLD OBJECTIVE

A close-up glimpse of agriculture in the West Indies.

by Dr. John J. Mettler*

THE LAST WEEK in January, while the Northeast was staggering under the effects of two weekend storms, my wife and I were on the island of Barbados in the West Indies, not too far north of the continent of South America. I must admit that this trip was taken with no thought in mind of learning anything of interest about agriculture or veterinary medicine. However, I did spend half a day with a Barbadian veterinarian, and a day touring the island looking at their farms and fields. Since much of this was of interest to me as a veterinarian and a farmer, I felt that it might be of interest to you.

Barbados is part of the British Commonwealth, with its own government body elected by the people. There are about two hundred fifty thousand people in this island, which is about 21 x 16 miles in size. Sugar cane is its largest source of income; much of its food is imported. The United States and Canada sell bacon and poultry to Barbados, but nearly everything else comes from other sources. Dairy products (which consist of powdered milk, butter, and cheese) come from Holland and New Zealand. Fresh milk is available on the island, and since March 1 of this year a new dairy plant is pasteurizing and handling a greater amount of locally-produced milk.

Since Barbados is apt to be completely independent of Great Britain in a few years, more importance is placed on producing food crops than before. The new dairy plant, the growing of more yams and sweet potatoes, increased poultry production, are all mentioned by the local newspaper and by native Barbadians as a means of increasing self-sufficiency.

Riding around the island one gets the impression that it is one vast sugar cane field. Cane takes

* Practicing veterinarian, Copake Falls, N.Y.

one year from planting until first harvest. It is harvested by hand... the men cutting followed by the women, who pick it up and bundle it; this takes place from February first until it is finished in May. A field may be re-harvested one or two years more without replanting.

During the first year yams, sweet potatoes and other small food crops may be planted in between the cane rows, since they mature faster than the cane. Weed sprays similar to those we use on corn are used, and how they affect the small crops I don't know... but I do know they use hand cultivation where the small crops are planted. This is also done by women, mainly the elder women.

The farms with livestock are small, having perhaps four or five cows, several goats and sheep. Even in the villages it seemed as though nearly every house had at least a goat or sheep, many of them having a cow tied on a chain in the yard. The sheep and goats all looked the same to me. They were all colors... tan, black, white, and black and white. The sheep are "hair" sheep, having hair instead of wool. Our taxi driver explained that to tell the difference in a sheep and a goat you looked at their tails... sheep's tails hang down, goats' tails point up! I'm glad they didn't ask me that question on state board exams!

The sheep were big strong animals, and once I got used to seeing them without wool I realized they were quite good on type. Breeding stock from both Africa and India have been imported, and so far apparently the cross of these two has produced a hair sheep best suited to the island. Mutton is used as meat far more than we use it here in the United States. (Continued on next page)

The Song of the Lazy Farmer



whatever comes to hand about how we should treat our land; I list rotations I could use and finally figure which to choose. And then I order all my seed and get the plant food I will need; as soon as snow begins to wane, I make Mirandy start to train so she'll be hardened up and fit for work when time is ripe for it; and then, to be as safe's I can, I sign me up a hired man.

Comes spring, and it begins to rain, then all my efforts are in vain; for weeks the weather's soggy wet and it's not possible to get into the fields to do a thing until almost the end of spring. With ev'rything a month behind, it isn't long until I find that once again the weatherman has wrecked my carefully laid plan. So I get out my maps again and try to figure where and when and what I'll have Mirandy plant in place of all the things she can't; and with each day of rain I yelp because I know I'll have to help.

American Agriculturist, April, 1966

The cattle are used for both meat and milk, but few of them appear capable of producing much of either. I was told that they are Jersey, Holstein, Guernsey cross . . . but to me they appeared to have some Red Cindy (a red Brahman from India) blood. Udders were about the size and shape of a two-quart thermos, with four large teats the size and shape of pint thermos bottles. I would guess that the person who did the milking had to go easy to keep from skinning his knuckles with one hand rubbing against the other while milking.

Government Veterinarian

The veterinarian I visited was a Barbadian who graduated from Edinburgh, one of the finest veterinary colleges in the world. He had practiced in Great Britain for eight years before coming home to Barbados. He is now government veterinarian as well as a private practitioner. The morning I spent with him he examined and treated dogs, donkeys, chickens, cats, cows, pigs, sheep, goats . . . and race horses. This was truly a general practice! I have seen few veterinarians more skilled in such a variety of tasks as this man undertook.

This veterinarian owns three thoroughbred race horses, two of which he keeps in air-conditioned stalls. He explained that he didn't have air-conditioning in his home but felt that the horses needed it more than his family. These horses are raced at nearby Trinidad and British Guiana as well as on Barbados.

The cattle artificial breeding stud has six bulls. The only purebred is a Jersey, and the best-looking cattle I saw on the island were of the Jersey type. A semen tank for liquid nitrogen storage of frozen imported semen is on order. Even when this is set up, however, they intend to continue the use of the grade bulls, since they feel that their offspring will be best adapted to the heat. From what I learned about producing milk on Guam in 1945, our cattle from the United States can take the heat if properly fed and shaded. However, many of these cattle will be staked out next to a house, eating very little, and with no protective shade. Perhaps the crossbred bulls will still be necessary.

CAN YOU HELP ?

The Heifer Project, Inc., is a nonprofit organization seeking to help underdeveloped nations build a better food supply by sending them good blood lines of livestock. The organization needs some Babcock test equipment for testing milk butterfat. Anyone with any ideas should contact Mr. Roger H. Cross, Green Lake Road, Fayetteville, New York 13066.

Husband, finding holes in his socks: "Didn't you darn these yet?"

"Did you buy me that coat you promised me?" she asked.

"NO-O-O!" he answered.

"Well, if you don't give a wrap, I don't give a darn," she retorted.

American Agriculturist, April, 1966

Anaplasmosis is the primary cattle disease, and this prevents importation of non-immune mature cattle from the United States and Canada. The new anaplasmosis vaccine may change this. The veterinarian mentioned to me that on Trinidad feeding of antibiotics to imported cattle gave some promise of preventing the disease.

Cattle, sheep, goats and horses are fed pangalla grass, which looks like a lush fescue-type grass. It will produce a crop in six weeks after cutting, and is the most nutritious fodder they can grow.

Since the coral soil is so high in calcium and low on other minerals, the calcium phosphorous ratio must be watched constantly. When the veterinarian made a large ani-

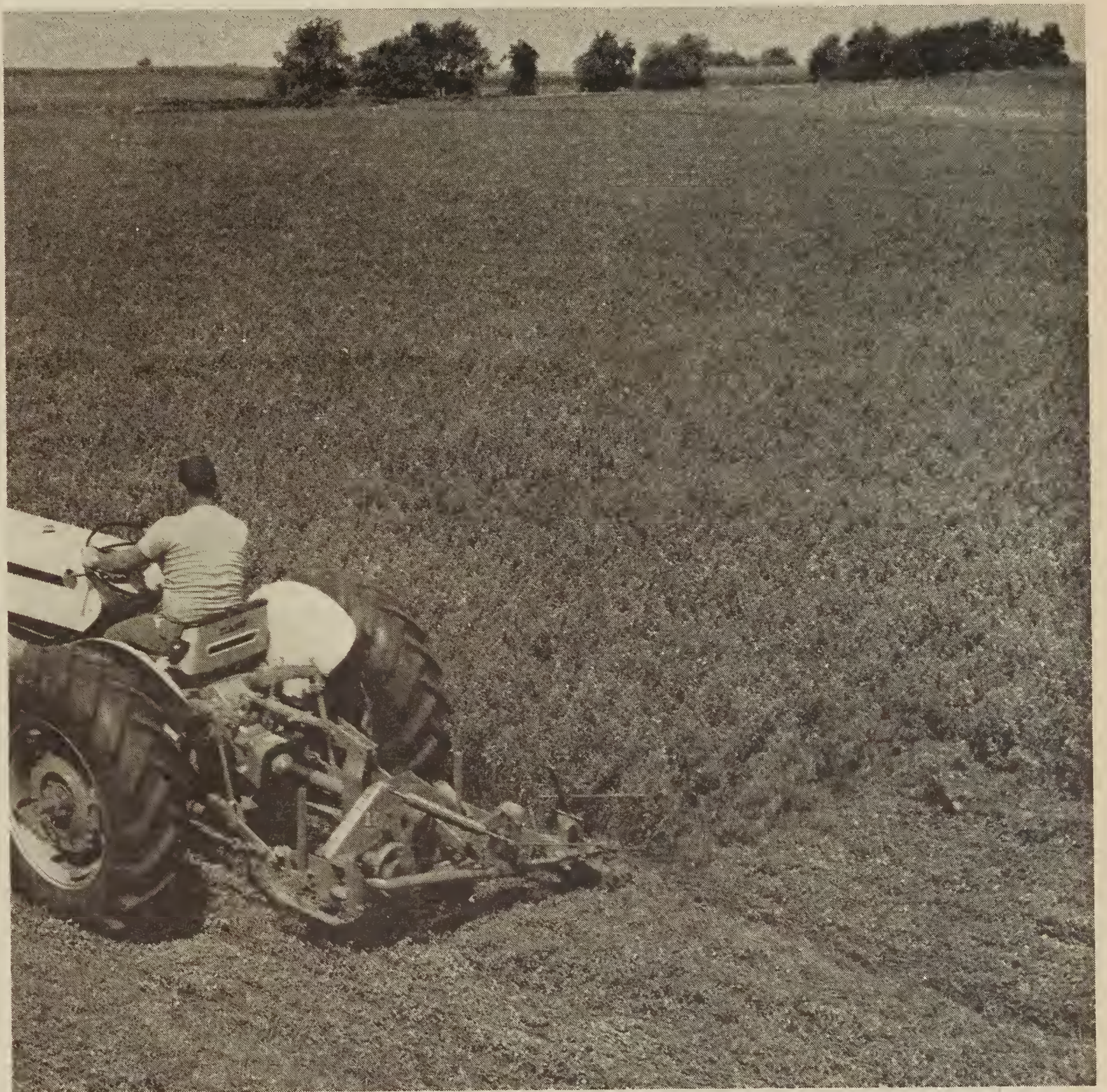
mal call he not only checked into the disease aspect; he also checked diet and prescribed a mineral supplement, change of feed, or both, as well as whatever medicine was needed.

First Impression

My first impression was that a couple of smart Americans with a couple of hundred good American cows could produce more milk than all the cattle on the island. Perhaps it wouldn't work, though, because of things like labor, import duties, available land for fodder growth, and diseases that are unknown to us. Maybe there is a happy medium. The change some frozen semen could make in the cattle population in just one

generation should be fantastic.

Seeing the way another part of the world farms gave me much to think about. It makes me wonder if much of the hunger in the world is due not to lack of land or livestock, but to unwillingness to change methods and ideas. It makes me more appreciative of American agriculture and the American farmer, who is willing to change his methods and ideas without losing sight of his two-fold objective . . . to make a living and to feed his country. This close-up glimpse of a tiny part of the world made me feel good, too, in letting me see a fine, hardworking veterinarian doing his part in helping his people care for and improve their livestock.



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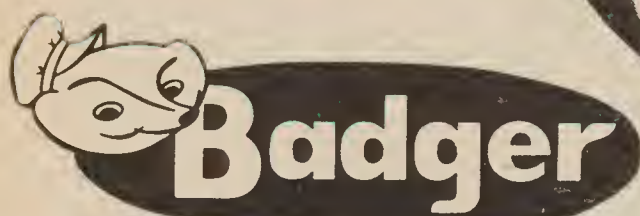
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Roadside Produce Grower Offers...

TIPS FOR URBANIZED FARMERS

by Bernhard Roth Soil Conservation Service

WHEN A SEA of rooftops threatens to engulf your crop rows . . . the tax rate sails over the moon . . . and your farm-minded friends have practically vanished . . . what are the keys to survival in continuing to live off the land?

Few people are in better position to throw light on this sort of dilemma than George J. Talakowitsh. His thriving market garden on Valley Road in Wayne, New Jersey, is a 20-acre island amidst encroaching suburbia, barely 10 miles, as the starling flies, from the Empire State Building.

The noise of hammering, sawing, earth-movers and traffic have replaced the rural quiet of the township that existed when George and his wife, Sonja, moved there 35 years ago.

Land prices and tax rates have spiralled ever upwards as the once-rustic neighborhood absorbed its present population of more than 30,000. A 44-acre dairy farm just sold out for \$200,000. The owner had been paying \$6,000 annual taxes. Last year, George paid \$2,000.

There may be relief in a new formula for farmland taxes enacted by the State Legislature in an effort to preserve open areas. "But," says George, "it's not clear yet whether our bill would be reduced. Savings would have to be paid back if we were ever forced to sell."

Much Thought

The one-time Long Island potato grower gives a lot of thought to the plight of today's urban-pressed farmer. He's well aware there are thousands like him feeling the squeeze all across the country. Related problems make for lively discussions among those who stick to the soil. George recalls plenty of long evening debates at meetings of the Northeast Soil Conservation District, of which he is a director and treasurer.

He is convinced that urban survival depends on insuring that

every possible penny that the land produces will wind up squarely on the plus side of the ledger. That's his main reason for selling 100 percent at his roadside market. His other means of keeping the cash from trickling into somebody else's pockets include doing much of the field work himself, and depending on his wife, and sister-in-law, Mrs. Anna Arlt, to take care of the customers.

"Merely putting up a roadstand isn't the whole answer, either," according to George. "Plenty of farmers have starved trying to get by with sales made to their local neighborhoods. I'm convinced you have to be on a through route with plenty of traffic. People have to see your stand and fields often before they'll stop."

Main Route

The Talakowitsh stand is on a busy stretch of the road network embracing many of North Jersey's "bedroom" communities and popular routes to New York City via George Washington Bridge and the Lincoln Tunnel. Customers who drop in for a dozen ears of sweet corn or a bag of tomatoes may live as far as 15 to 20 miles away. At season's height 5 or 6 carloads of eager patrons may be seen in the parking lot steadily from 9 in the morning until the Valley Road market closes at 6 p.m.

Proven merchandising methods also apply to urban farm marketing, George believes. "I'd advise anyone trying our kind of operation to keep the produce really fresh and attractive; also to keep abreast of new and superior varieties."

Talakowitsh also recommends conservation measures to assure top yields. He has a complete soil and water plan of management underway. This includes a permanent sprinkler irrigation system.

"Folks in the neighborhood tell us they hope we'll stay in farming,

(Continued on page 33)

American Agriculturist, April, 1966

EPTAM FOR BEANS

IF PROPERLY APPLIED, Eptam (EPTC) is so effective as a weed killer in bean fields that usually only one... and sometimes no cultivation is necessary. So states Professor R.F. Sandsted, Vegetable Crops Department, Cornell University. He reports that growers should not expect to get by without any cultivation, but with the use of EPTC the number can be kept to a minimum.

Mechanical harvesters pick with maximum efficiency in weedless fields which are free of cultivator ridges. With a reduction in the number of cultivations, elimination of hand weeding, and an improvement of picker efficiency the cost of \$8.50 per acre for the herbicide is easily recovered.

Some Cultivation

Cultivation usually cannot be eliminated entirely because it may improve soil aeration and loosen up the surface of heavy soils which have been packed or crusted by heavy rains. It helps to control those weeds which are tolerant of

Urbanized farmers

(Continued from page 32)

and that brings up another thought to pass along," suggests George. "When you farm right under people's noses, so to speak, you have to put your best foot forward . . . I mean, give a little extra care to your manner of spraying, plowing, and so on. It's the way to have neighbors regard the place as a community asset . . . not a nuisance."

The Talakowitsches are pleased with the educational interest their farming attracts. Hundreds of school youngsters visit each year. Last year at Halloween when the market displayed mountains of golden pumpkins, 32 classes of elementary grade children took teacher-conducted tours of the grounds. Afterwards, the Talakowitsches received copies of compositions and drawings resulting from classroom effort.

Mrs. Talakowitsh cherishes one youthful sketch in particular. It depicts George as "The Farmer" and herself as "The Farmer's Daughter!"

George offers a final piece of advice: "I can't imagine anyone these days buying urban land to do our kind of enterprise; the price would make it ridiculous. But I would say that young fellows who have the desire and ability for agriculture ought to be encouraged to get the best college training available; that should include training in business methods. Farming nowadays is a business . . . big and fast . . . and the competition is stiff."

The Talakowitsches have no children to take over the farm operation, and they make no predictions as to the future of their 20 acres. Meanwhile, they and their customers continue to enjoy the tiny island of greenery . . . especially for its sharp contrast to the feverish development going on all around it.

American Agriculturist, April, 1966

the herbicide or grow in areas which were missed or skipped at the time of application. If not controlled by cultivation, those weed species of minor importance not controlled by the herbicide may spread rapidly and become a serious problem in later years.

The cost of the herbicide can be reduced by applying a 12 to 14-inch band over the bean row at planting time. In general, though, banding is not recommended because EPTC must be mixed with the top three to four inches of soil. Most equipment available for incorporation of band applications doesn't do a thorough job of mix-

ing the herbicide in the soil. In addition, weeds must be cultivated out of the center of the row; some injury and a delay in plant emergence has been noted when beans are planted immediately after application.

Best results are obtained with an overall application and immediate soil incorporation with a disk or spring tooth harrow. Another tillage operation one to two weeks later just before planting improves effectiveness of the chemical. EPTC must be applied to a dry soil surface which is in good tillable condition. It evaporates and is lost almost immediately if applied to a moist surface. The best time for application is in the afternoon of a warm sunny day.

EPTC is available in either granular or liquid form. It should be used at a rate of three pounds active chemical per acre. Higher rates may injure plants . . . they usually recover, but will mature a few days later than uninjured plants. It will control most broad-leaf weeds except mustard; it is very effective for seasonal control of nutgrass and most annual grasses. Occasionally it will reduce the stand of quackgrass.

Failures of weed control with EPTC can usually be traced to application on a moist soil surface (even if moist from a heavy dew), or delayed or inadequate soil incorporation. It must not be used on lima beans, but it is a good herbicide for snap and dry beans.

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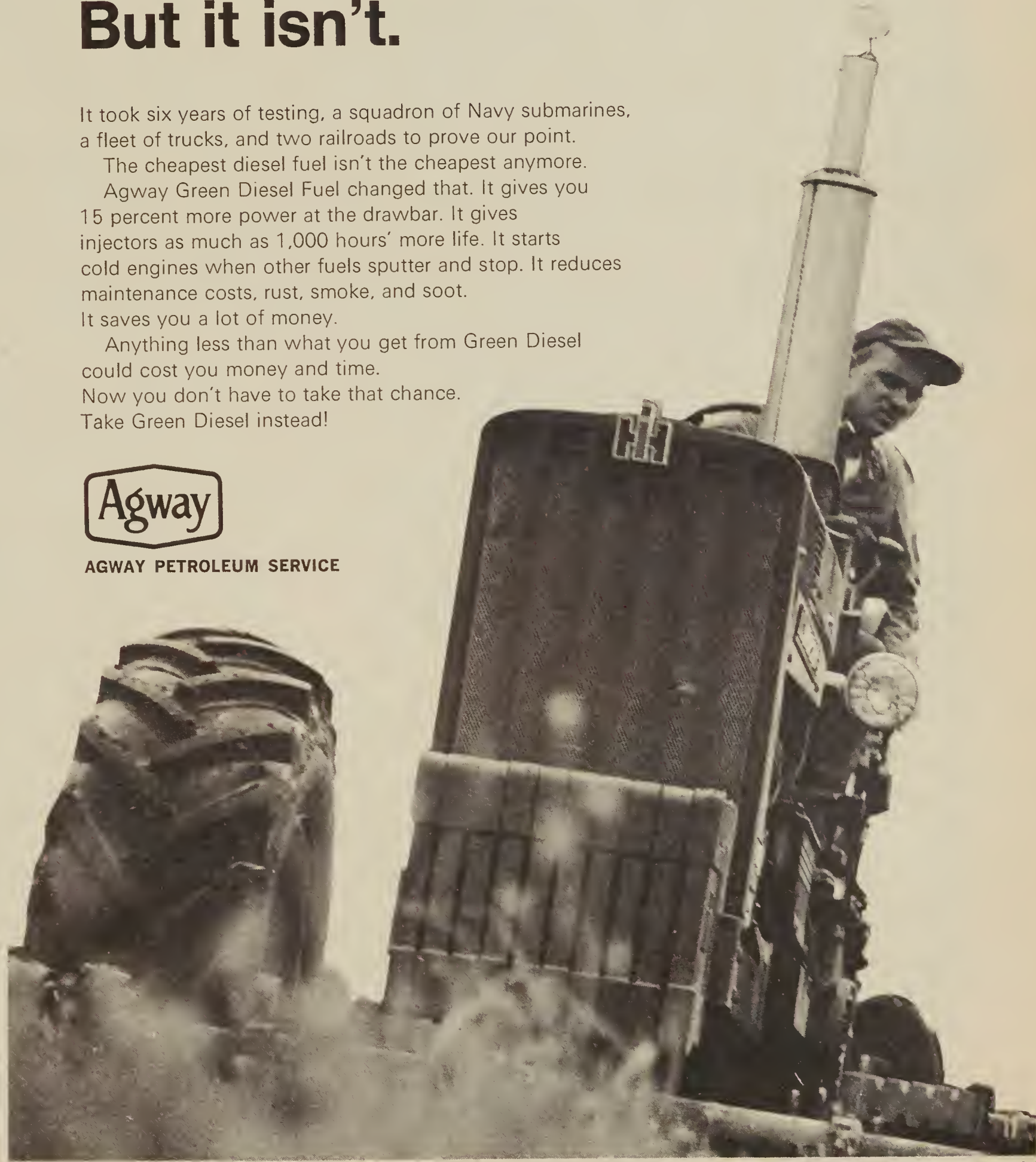
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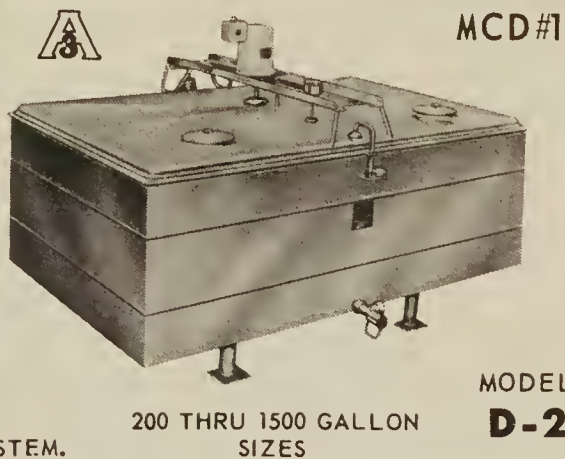


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Let me help you

GET READY FOR COLLEGE

By E. R. Eastman

All over this land there are many thousands of young men and women now seniors in high school who are planning to go to college this fall. It is a tragic fact that over half of those who enter college will fail to graduate.

How can some of these failures be avoided?

In addition to my writing a page for every issue of American Agriculturist, I have in the last five years counseled hundreds of students of Ithaca College on personal and academic problems in an effort to help keep them from failing.

Out of this experience, I may be able to offer some suggestions that will help you stay in college. If you are a parent or friend of a prospective college student, you may want to bring these suggestions to his or her attention.

Choose Your College

The first job is to choose a college and get accepted. If you have not already done this, it is high time that you did; the competition to get into college is very keen. Other things being equal, I think an undergraduate has a better chance in a good small college than he does in a great university.

In choosing a college, be sure you know its rules and regulations and the courses of study offered, so that you will know what to expect and can govern yourself accordingly.

What you do in these last weeks of your senior year of high school may determine your whole success or failure in college. College work is not just a continuation of high school. It is much different and much harder. You may get by with little work in high school, but you can't do it in college. If you have poor study habits, you must surely change them now. Get in the habit of working at least two or three hours every school evening. The importance of your high school grades or marks (especially in your senior year) can't be over-emphasized. Make a schedule to use all of your time... and keep it. Resolve to study harder than ever before.

To succeed in college you must be motivated. You want to go not just because it is fashionable, but because you personally want to do that above everything else in life.

You want to go to college because you know that without education you cannot live a full and happy life or be of the most service to others.

It helps a lot if you can decide what you want to do in life so that you can choose your college courses to attain that end. But if you can't make a choice now, take basic courses in your freshman year... like English, history and science... and they will make a foundation for whatever you want to do.

Each summer Ithaca College

sends to each member of its incoming freshman class a set of papers prepared by me on how to make the big adjustment from high school and home to college classroom and dormitory, with suggestions on how to handle your personal problems and how to study effectively.

Among other subjects these papers include suggestions on personal problems like homesickness, boy and girl friends, proper attitude, and on how to maintain good health. On academic problems there are detailed instructions on how to study scientifically, including how to make a daily time schedule, how to get interested in a subject, how to concentrate, how to take notes, and how to build and keep goals and ideals.

As a matter of public service, Ithaca College will send, while the supply lasts, a copy of these papers without charge to any student anywhere who is planning to go to college this fall, or to the parents or teachers of such students. Address your request to: Dean of Students, Ithaca College, Ithaca, New York 14850

Dates to Remember

April 3-5 - 9th Annual Delaware Conference on Food Distribution, University of Delaware, Newark.

April 5-6 - Poultry Sales & Service Conference, The Pennsylvania State University, University Park, Pa.

April 9 - New York Hereford Association Show and Sale, Cornell Livestock Judging Pavilion, Ithaca, N.Y.

April 14 - New England Dairy Feed Conference, Boston, Mass.

April 14 - Annual meeting, New York State Guernsey Breeders Cooperative, Inc., Hotel Manger, Rochester, N.Y.

April 16 - New York Angus Breeders' Show and Sale, Cornell University, Ithaca, N.Y.

April 23 - Joint meeting with Region I Flying Farmers, tour of Lycoming Motors, Williamsport, Pa.

April 23 - New York Beef Cattlemen Breeding Stock Sale, Pike, NY.

April 24-29 - National 4-H Conference, Washington, D.C.

April 27-29 - Poultry & Egg National Board, Statler-Hilton Hotel, Los Angeles, Cal.

April 28 - Farm Bureau Women's Rural-Urban Day.

April 29 - New York Beef Cattlemen Breeding Stock Sale, Caledonia, N.Y. 7 p.m.

April 30 - New York Short-horn Association Show and Sale, Cornell Judging Pavilion, Ithaca, N.Y.

May 11-13 - American Feed Manufacturers Association, Conrad Hilton Hotel, Chicago, Ill.

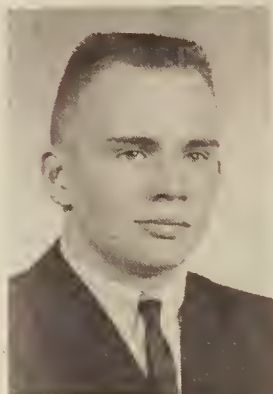
4-H DAIRY CHAMPIONS

by Dennis A. Hartman*

A BIG EVENT in the lives of young men and women with dairy 4-H projects is when they are chosen by the New York State Extension Service and the State Dairy Breed Associations for excellence in over-all dairy achievement. Here are summaries of the qualities in the present winners that led to the honor:

In the Holstein breed, Donald Bossard (19) has seventeen animals of his own breeding at home in Hornell, New York. One of his foundation animals, Walnut Lane Ivanhoe Fran, is classified 88 points and has a six-year-old record of 20,790 pounds of milk and 837 pounds of butterfat. His eight milking animals have an average production of 14,520 pounds of milk and 536 pounds of fat.

* Cornell University



Donald Bossard



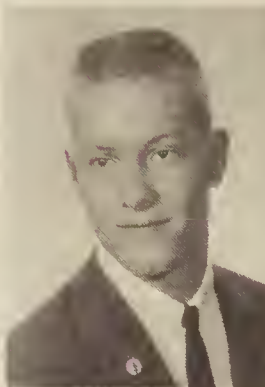
Betty Keene



Conrad Frennier



Arlene Lewis



Stanley Saxton



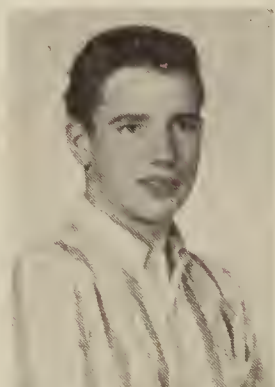
Linda Casler



Russell Subject



Robert Miller



Barry Lathrop

Don does very well at judging, too. In 1962 he was a member of the National Champion 4-H Judging Team, and earned the highest score ever attained in that 4-H judging contest at Waterloo, Iowa. Don also competed in the International 4-H Judging Contest at Warwickshire, England, where the team won fourth place.

Betty Keene, champion Holstein girl, Gilbertsville, New York, has brought a second championship to the Keene family. Her sister

Sandra was champion Holstein girl in 1962. Betty was a member of the winning 4-H Judging Team at the International 4-H Judging Contest in Chicago in 1965, and placed 4th high individual in the all-breeds judging.

At 17 years of age, Betty has accomplished almost every achievement in Junior Holstein work. She was a Master Showman in 1965 at the State Exposition and this year was 8th individual in the 4-H dairy judging contest. Also, she won Grand Champion honors at her county fair, 4-H and open class, and Black and White Show for the past two years.

Betty has sixteen animals of her own breeding, one of which has

a five-year record of 20,060 pounds of milk and 726 pounds of fat in 305 days.

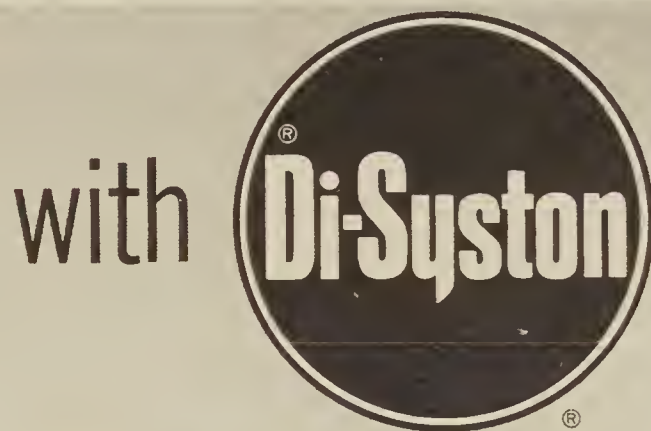
Jersey King

Conrad J. Frennier (19), Ellensburg Depot, New York, has just been selected as the 1965 New York State 4-H Jersey King.

Conrad started his 4-H work twelve years ago, and now owns 15 cows, 4 heifers and 6 calves. One of his animals has a production record of 12,608 pounds of milk and 668 pounds of butterfat. Conrad has taken an interest in showing his cattle at the county fair, and for several years has been a member of the county 4-H

(Continued on page 36)

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Control Mexican bean beetle larvae, leafhoppers, thrips, mites and aphids on beans and sugar beets by using Di-Syston, the systemic insecticide that is applied to the soil at planting time. Di-Syston is absorbed by the roots and travels through the sap stream to protect all parts of the plant. Protection against the attacking insects lasts up to eight weeks, giving your crops a healthy, vigorous start. Di-Syston kills leafhoppers which may transmit the bean mosaic virus. Apply Di-Syston this season. It's another quality Blue Bullseye product from Chemagro.

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Dairy champions

(Continued from page 35)

dairy judging team.

In the field of leadership, Conrad has been an officer in his local club, as well as assistant junior leader and project leader for the past five years. At present he is a junior in the Canton agricultural and Technical College.

4-H Jersey Queen is Arlene Lewis (17), Ludlowville. Starting her 4-H work seven years ago, Arlene has

accumulated three cows and a calf, and has sold four animals in preparation for financing her college education. Arlene has shown her cattle at the New York State Exposition, and won a number of blue and purple ribbons. She has placed in showmanship contests, and this year is a member of her county 4-H dairy judging team.

Brown Swiss

Stanley Saxton (18), Cohocton, carried off the honors for the

Brown Swiss breed. In eight years of 4-H club work he has achieved an enviable record. At present he owns three cows, two heifers and one steer, has shown his cattle at the local cattle show and at the county fair, and excelled in dairy record-keeping and in dairy demonstrations.

Linda Rae Casler (17), Fort Plain, has been named State 4-H Brown Swiss Girl. She has been at 4-H work for nine years, and at present has a herd of five cows, three heifers and four calves. Linda received her first project calf from her father, but in 1958 she won a registered Brown Swiss from the Kiwanis Club. She is good at showing, and has exhibited her cattle at the local Canton Show, the Farmers Museum Show, and at the New York State Exposition, winning a number of blue and purple ribbons. One of her cows has a record of 14,314 pounds of milk and 665 pounds of butterfat.

State Guernsey winner is Russell Subject (18), Cuba. In his ten years of 4-H club work Russell has accumulated a fine herd. At present he owns six cows and five heifers, five of which are of his own breeding.

He does an excellent job of showing, being named senior and grand champion for the fourth consecutive time at the Western New York Guernsey Show. His cattle have won blue and championship ribbons at the county

fair and the New York State Exposition. Russell has the Empire Farmer degree (1964) and was also named the FFA Guernsey Winner.

Ayrshires

Robert Miller (17), Hornell, is the 1965 New York State 4-H Ayrshire Achievement winner. Robert has been a 4-H club member for eight years, and has a herd of eight Ayrshire cows and two calves, five of which are of his own breeding.

He has shown his animals at the county and State expositions, won a Master Showmanship award ribbon in 1964, and has developed into a fine dairy judge. Robert, too, is the second in his family to be named Ayrshire winner. His sister Janet was named to the award in 1962.

Barry Lathrop, Sherburne, is the youngest among the winners, and at 16 years of age is the owner of 7 Milking Shorthorns, of which four are of his own breeding.

Barry has shown his animals at county fairs as well as at the State Exposition, and won the Master Showman award at the 1963 State 4-H Dairy Show. In 1965 he showed the Grand Champion cow at the State 4-H Dairy Show. Barry takes an active part in his local FFA chapter and 4-H club.

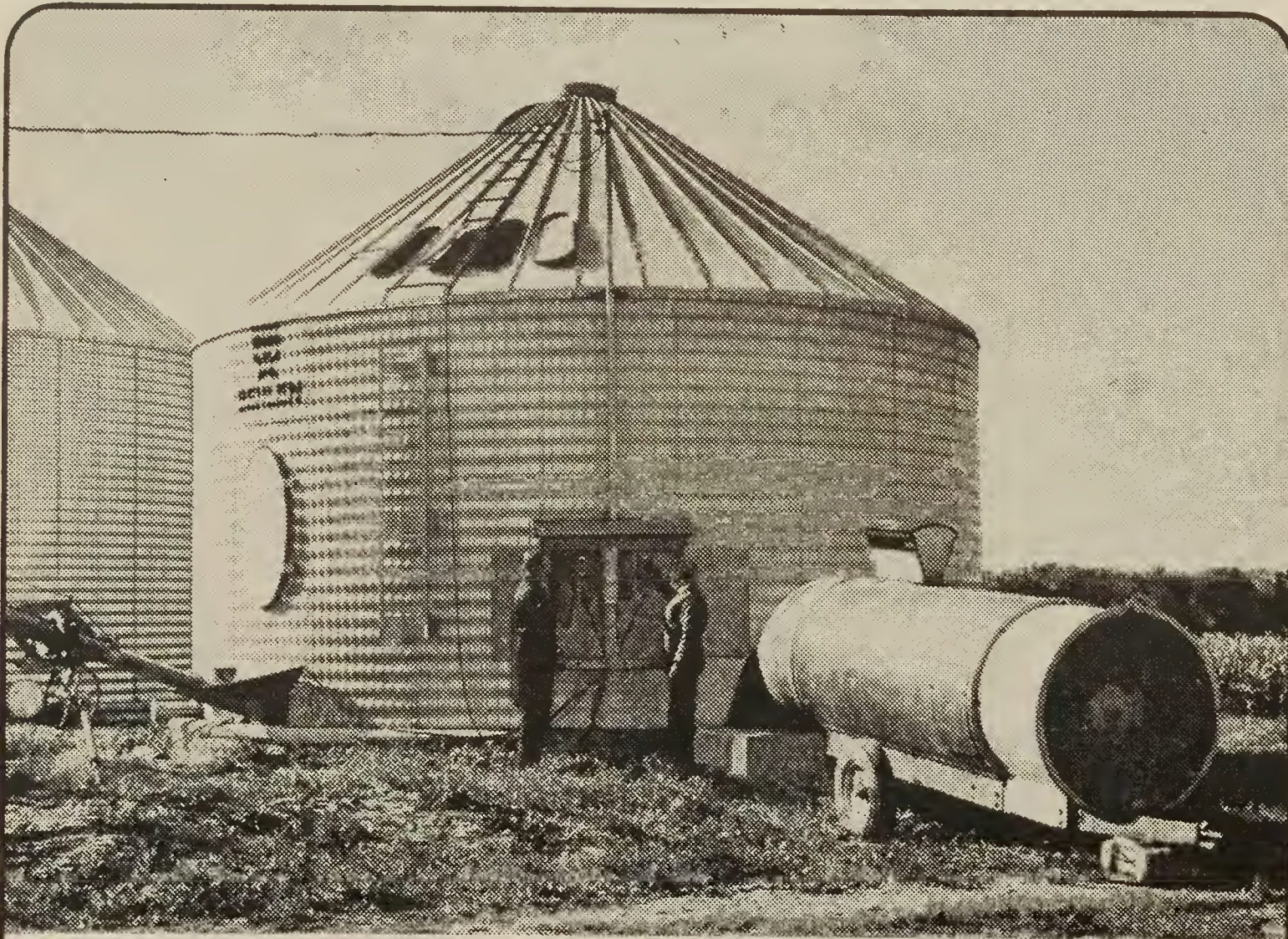


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SUGAR CONTRACT

Central New York sugar beet growers and the Empire State Sugar Company have reached agreement on a contract for 1966. Among the provisions are:

1. A reduction of 40 percent in transportation charges for beets, to bring cost to 60 cents per ton except in Brockport and Westmoreland areas, where the charge will be \$1.05.

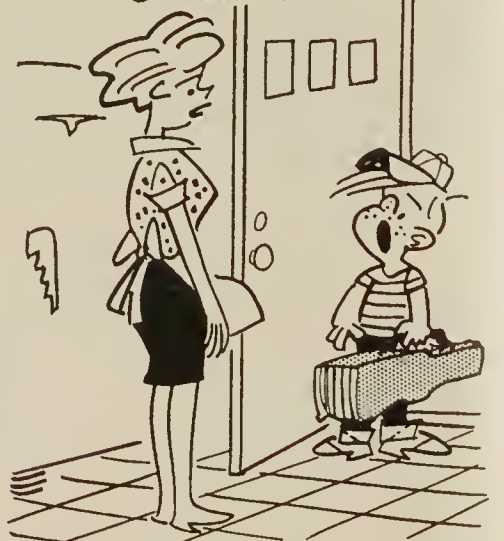
2. Loss by shrinkage in piles of stored beets will be kept to maximum of .3 of 1 percent.

3. Growers will get 80 percent of payment by the 15th day of the month following delivery by the grower.

4. Empire will withhold from growers dues for membership in the Finger Lakes Sugar Beet Growers Association.

5. Growers can buy beet pulp for livestock from the refinery at a wholesale price.

FLETCHER THE 4-H'ER
© JOE E. BURESCH



"The music teacher's wife said the missing person's bureau has no trace of him since right after my last lesson!"

American Agriculturist, April, 1966

News and Views from NEW YORK AND PENNSYLVANIA



Association Officers — 1966 officers for the New York Holstein-Friesian Association are: Kenneth A. Patchen, Locke, president; Joseph Fisher, Canastota, and Avery Stafford, Peru, vice presidents; William J. Baldwin, Ithaca, secretary; Charles Replogle, Ithaca, assistant secretary; Adrian T. Personius, Ithaca, treasurer; and Donald Shelmidine, Adams; Newton Sweetland, Cazenovia; and Everett Jones, Millerton, executive committeemen.

Correspondence Courses — Penn State's correspondence courses in agriculture and home economics were first started in 1892, and at least 200,000 persons have studied them during the past 73 years. Now the College offers 70 correspondence courses in agriculture and 14 in home economics.

Wills and estate planning; contracts involving purchases, sales, or services; liability regarding employees, visitors, children trespassing; agreements regarding real estate; water rights; and motor vehicle laws... all these affect farmers, sometimes vitally. The Pennsylvania State University correspondence course on farm law is easy to read but comprehensive.

Not interested in law? Well, what about agricultural economics and rural sociology... agricultural engineering... agronomy... animal science... dairy science... entomology? There are 14 courses in home economics, ranging from baby care to what to wear. Then there are horticultural courses, poultry science, and the special interest group covering forestry, bacteriology, parliamentary procedure, newswriting, fallout protection, etc. etc.

A letter to Correspondence Courses, Box 5000, University Park, Pennsylvania 16802, will bring a bulletin describing all courses and how to enroll.

Agricultural Counselor — Professor Robert S. Smith, farm finance specialist at Cornell University, received the first agricultural counselor's award presented by the Farm Credit Banks of Springfield, Massachusetts. The award honored the professor's "outstanding educational service to farmers and agricultural organizations" in New York State and the Northeast.

Professor Smith has been active in agricultural leadership work for more than 20 years, and has dealt particularly with credit management problems of young farmers and farm family financial planning.

Pesticide Research Laboratory — Experiments involving pesticides will be expanded at The Pennsylvania State University with the establishment of a combined pesticide research laboratory and graduate study center within the Department of Entomology.

(Continued on page 43)

This is Attebroc Gay Promise, three-year-old Guernsey, a new national class leader for milk and fat, bred and owned by Robert H. Corbetta, Millbrook, New York. In addition to the class-leading record, Promise has a Junior 2-year-old record in 305 days of 13,490 pounds milk, 599 pounds fat.



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Owatonna gave the crop-harvesting world its first windrower some 17 years ago. That was only the beginning! We added dual wheels for greater stability and traction. And then incorporated the mounted hay conditioner to give the windrower multi-crop efficiency. When auger headers came on the scene, the problems of hay bunching up and uneven windrows came with them. Owatonna's Tapered Auger provided the answers.

Take away Owatonna's contributions and you'd be without the patented platform angle, cutting header "floatation", power-crimp conditioning and uniform air-cured windrows. Exaggerating? No! Tooting our own horn? Maybe a little. But when you invest in a windrower, it just makes good sense to find out what's in back of the machine you buy. See Owatonna first... you'll learn what the leaders are doing.



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Owatonna R-4, Minnesota

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New poultry house at Smithome Farms in foreground; older house behind.

NEW POULTRY HOUSE

by Gordon Conklin

THE FIRST thing I noticed about William Smith's new poultry house was that it is long... 428 feet long, in fact. The next thing was a sound hardly ever heard on poultry farms any more... the clarion calls of many roosters.

State Senator Bill Smith of Big Flats, New York, became nationally famous a few years ago as "Cadillac Bill" when he journeyed to Washington to thank Secretary of Agriculture Orville Freeman for the federal crop program payment that he had used to purchase the automobile. Mr. Freeman accused him of not being a farmer, but Smithome Farms is very much in the food production business.

Hatching Eggs

The egg business, though, is largely involved in food production only on an indirect basis... with hatching eggs being the major product and table eggs only incidental. The Smith's new building has 13,000 birds, with a hen-to-rooster ratio of 8 to 1. Each bird has 1.25 square feet of floor space.

It is a one-story building with pole-type framework, metal roofing for sides and roof. There are no supporting posts in pens or egg room because of the clear span truss rafter construction. Insulation is 4 inches thick on both side-walls and ceiling.

Santelli Building

The Santelli Lumber Company of Lyons, New York, put up the poles and roof... Bill did the rest with his own crew. The 42 x 28-foot egg handling room is in the center of the building, with a pen measuring 42 x 200 feet and holding 6,500 birds on each end.

Water and feed areas are located over slats under which there is a pit 4 feet deep and 26 feet wide. This leaves 8-foot concrete walkways on each side of the pit, on which litter is used. "They ate up sawdust," Bill says, "but we're trying other kinds, including sugar cane and wood shavings." The slatted area is raised above the side walkways so that litter doesn't drop through the slats.

After a flock has finished a 15-month laying season and is moved out, the slats are lifted up and a tractor with front-end loader moves in to take out accumulated manure.

Nests are in a single row along each wall; eggs roll away on plastic-covered wire to a collection belt under the front of nests. Bill reports few floor eggs being laid with this

system, despite some dire warnings from a few people.

Lighting at present consists of regular 25-watt bulbs in rows 10 feet apart and bulbs 10 feet apart in the row. It's a windowless house, with artificial light only. Hours of light start at 10, are stepped up 20 minutes each week to a maximum of 16 hours. The building has a 200-ampere electrical entrance, and natural gas is piped into the egg-room.

The Smiths receive day-old chicks from Babcock Hatcheries at Ithaca, New York, and brood them in a nearby building heated with a natural gas-hot water system. These young birds grow to become the breeding flock from which Bill delivers to Babcock for hatching all eggs 23 ounces and over in weight.

Bill sums up the reason for his move in building the new facility by saying: "One man can care for twice as many birds in the new house as in the old multi-story one we've been using... and are still using." Guess the economist would call it "the reach for labor efficiency." Anyway, the net result with good management is lowered cost per dozen eggs produced.

NEPPCO'S EGG WASHING RULES

1. The egg shell is porous, and bacteria can move through it when moisture is present. When eggs are washed the water temperature must be at least 30 degrees F. higher than the egg temperature. Suggested safe temperature range for wash water is 110-125 degrees F.

If the water temperature is hotter than the egg temperature, positive pressure is created within the egg thereby preventing the absorption of microorganisms which might be present on the shell. If the water temperature is equal to or less than the egg temperature, negative pressure is created, permitting microorganisms to enter the egg.

2. Never allow the washing solution to exceed a temperature of 130 degrees F. Eggs exposed to high temperatures stand a good chance of being partially cooked.

3. If eggs are washed on the farm they should be washed as soon after gathering as possible, and pre-cooled for 12 hours prior to packaging. If the eggs are to be cleaned off the farm and cartoned

(Continued on page 39)

STOP WASTING FEED!

OLIN ROWOTH, Director of Poultry Research for Beacon Feeds, makes these comments on feed wastage in poultry houses:

Feed wastage that means a feed conversion of 4.5 pounds instead of 4.2 pounds per dozen means an extra cost for 30 tons of feed a year in a 10,000 bird flock averaging 240 eggs per bird. That's the cost of better than a carload of feed . . . and no extra eggs to show for it!

What can the poultryman do to minimize feed wastage? Probably the first thing to do is to check feeding practices and feeder equipment. We know that overfilling feeder troughs is a wasteful practice. There should be at least one and one-half inches of feed in the trough, but no more than one-third full. This means a trough depth of at least four-and-one-half inches.

Feeding at least twice a day, or three times, is recommended when using a feed cart. Set automatic feeders so that the level of feed is low, but run with sufficient frequency to have feed before the birds at all times.

When filling cage feed troughs, do not overfill. Run the feed cart slowly enough to do the job right and not spill feed on the floor or dropping boards. Overfilling the troughs is as bad as spilling the feed. Too often the person feeding is more interested in getting this chore done than in how carefully he does it.

Know your feed consumption. Using bagged feed, this is relatively a simple matter. When bulk bins are utilized, this can be somewhat more difficult. Utilizing an old clock to record the time the intake auger runs is one method. With a little experimentation, you can determine how much feed is augered in a set time. This figure, multiplied by the length of time the auger runs, will give you the total feed used.

Coarsely ground, pelleted or crumbled feeds tend to be less wasteful because of fewer fine particles which can "dust out" or be blown out of the troughs.

A well-insulated house can pay for a lot of feed. If birds are cold, they will eat more just to maintain their body temperature. It's an expensive way to heat the house!

Debeaked birds will waste less feed than those which have not been debeaked. One Rutgers University test showed debeaked birds wasting only 1 percent of their feed, while undebeaked birds wasted 4 percent. Production was comparable for both.

It is well known that for each rat seen, there are upwards to 50 more that are not seen. In our experience, most poultrymen do an excellent job in eliminating rodents. It's well that they do, though, for each rat will consume or contaminate about 100 pounds of feed per year.

egg washing rules

(Continued from page 38)

immediately following the washing process, they should be cooled for 12 hours prior to washing. 4. Once washed, dry eggs quickly and only pack DRY eggs in clean, preferably new material. Do not, under any conditions, pack eggs that are still wet, as there is a possibility of the eggs picking up off-flavors or permitting bacterial growth.

5. Once packed, eggs should be kept cool (55-60 degrees F temperature — 75-80 percent relative humidity) to prevent quality breakdown and retard the growth of microorganisms. Remember it is a known fact that certain washers may increase internal egg temperatures by 15 degrees F. or more.

6. Completely clean all egg washing equipment after each day's operation.

7. Do not use any acid-based product to clean eggs. These compounds can seriously damage the shell and shorten the shelf life of eggs.

8. Have water checked for the presence of iron. If iron is present in amounts greater than three parts per million, a commercial water conditioner should be installed. It is a known fact that five parts per million of iron can create a serious egg spoilage problem. Check washers for rusty surfaces as these can add iron to the washing solution. If buying new wash-

ing equipment, insist on stainless steel tanks.

9. Do not add soap or additional detergents to sanitizers or cleaners. Never use a household detergent or laundry bleach to clean eggs. To do so is asking for trouble, as some of these products contain perfumes and other chemicals which can impart an off-flavor to the egg or damage the shell.

10. Under no conditions should quaternary ammonium-based compounds and ones containing chlorine be allowed to mix. Mixing unknown chemicals will lead to personal injury.

11. Only use fresh clean (drinking) water in any washing operation.

SLOW GROW

Consumers like large eggs, and large eggs generally bring more profits to poultry producers. However, some strains of chickens grow too rapidly, and as a result lay many small eggs.

University of Connecticut poultry scientists have developed a special deficiency diet that delays maturity in birds. Called the "Connecticut Slow Grow" poultry ration, the feed contains below-normal amounts of the amino acid lysine. It reduces growth of birds to 8 weeks of age by nearly 50 percent, and they mature about 3 weeks later than normal.

The later-maturing birds grown on the new ration produce more large and fewer small eggs.

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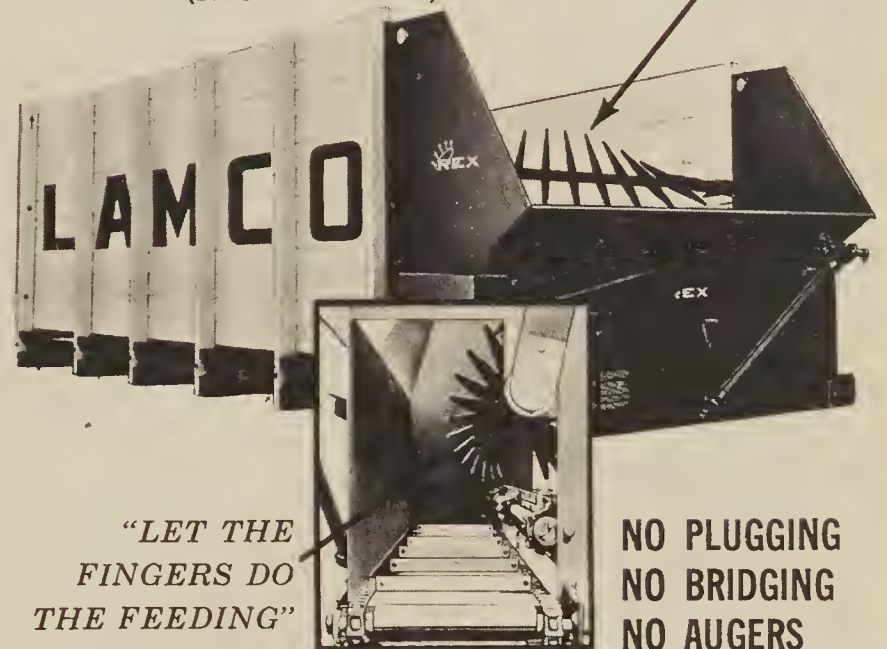
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Dave DeGraff, President

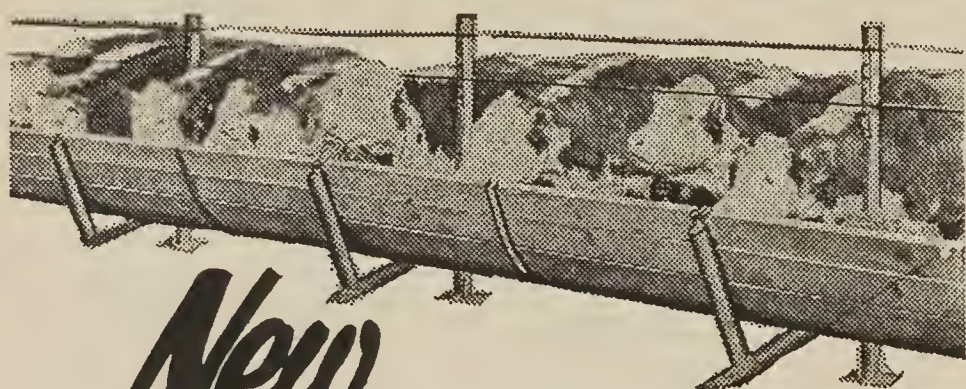
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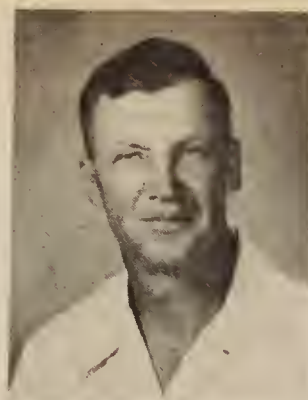
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Gayway Farm Notes

by HAROLD HAWLEY

DEEP SNOW AND RIDGES

Immediately following the early February touch of old-fashioned winter that came our way, the snow was too deep for manure spreading for most of us. Friend and neighbor Dick Daly had no real problem as he hitched his two strapping teams tandem and spread regularly. A lot of us are feeding saddle horses regularly . . . but they were no help.

We don't need to haul and spread every day, but do like to get at it every couple of weeks in the winter so as to have the work done. It occurred to us we could plow a road to a ridge, let the liquid manure out onto the snow and let it run downhill . . . kind of soaking and settling in as it flowed along. We soon found that a load would flow 125 to 150 yards downhill in a band 10 to 15 feet wide. All we had to do was to start the next load over a few feet. We did a pretty fair job of covering a lot of ground from one road along a ridge. This is about the first time our knolls and ridges ever appeared to have any purpose in life.

Those gay little red cloths attached to the tops of car radio antennae during the deep snow were a nice touch. For a few days they were the only way to tell if someone was coming out of a driveway or a side street. Even after the snow was melted down, many of the flags continued to fly from the masthead. They added a bit of color and gaiety to the scene, and from my standpoint were a country mile ahead of the coon tails sometimes flown from aerials.

HOOF TRIMMING

Following a winter and spring with our cows on steel slats which apparently are less abrasive than concrete floors, our cows' feet grew out pretty well. With toes too long, the cows stood too far back on the heel. This led to strain on the leg and to heel injury, and hence to lameness. After trying to keep up with it for a while by ourselves we finally had a fine professional come in and trim the whole bunch. This sure improved the looks of the herd and their posture, and pretty well put an end to the lameness.

It's not new to see these long toes on cows. Some used to grow out pretty well over winter in a stanchion barn, and would then wear or break off walking back the lane in the summer. Now with only an exercise yard for summer, there is not enough wear to keep

the hooves worn back.

Some visitors have suggested that a carborundum finish in the concrete either in the return alley or elsewhere would help to wear down the toe nails. As a start we have built a 10-foot strip of concrete with a coarse abrasive finish at the entrance to the parlor. It has an 8-inch slope up to the parlor door. It's too early to tell whether it will do the job, but if so it will be a lot easier and cheaper than a foot-trimming job for the whole bunch.

Incidentally, this carborundum finish sure takes the slip out of wet concrete both for cows and for people. A few handfuls sprinkled into the top layer is better than a health and accident insurance policy.

FAITH

A strong faith is a beautiful thing, be it faith in a loved one or in one's God, or just a deep sustaining belief in the ultimate goodness of mankind. In a scientific age most of us still take much on faith . . . not stopping to ask for the proof positive that the scientist might demand.

Against this notion of what faith is and what it means to me, you can imagine the jolt I received (as perhaps some of you did) when I read the first line of "A Special Message for Taxpayers." This was on the front page of the booklet containing income tax instructions and forms. And what did this message say? "Every year more than 60 million individuals demonstrate their faith in America by filing income tax returns."

Faith in America I have! Faith, too, in her future and in her slow process of government and justice. Likewise, I believe in her goals of equality and opportunity for all. But do I demonstrate my faith in my country by filling out the income tax form and sending a check to my government? I do not! I pay taxes just as I assume most others do . . . grudgingly and because there are no acceptable alternative choices. I pay with some resentment because a sizable percentage of my money will be wasted, and because too much of it will be spent to feed people well able to feed themselves. An additional heavy share of it will go to help finance programs that I do not believe are right or proper. The share of it which is used to provide needed governmental services at fair cost I pay gladly. But even for this amount, the paying is no demonstration of faith.

Incidentally, I get the feeling
(Continued on next page)

American Agriculturist, April, 1966

that it's a good thing the State of New York isn't a country by itself with a defense budget to meet. I've not taken the trouble to look up old budgets . . . state and national . . . but I get the impression that our State budget, even without a big defense program, is increasing at a rate second to none . . . or at least second to very few. Was the time when New York State income tax was more a nuisance to be figured than an expense to cope with. What with investment credits to be applied against Federal taxes, State taxes are getting to be larger than Federal. We do a lot of hollering about all the Federal expenditures (to little avail) yet sit still for an unbelievable expansion in the size of the State budget. It's just possible we had better get more concerned about expenditures right here at home!

HOW FORGOTTEN
CAN WE BE?

We've all been concerned about what reapportionment means and will mean to upstate people and some of us have been particularly concerned as to its implications as far as agriculture is concerned. Some have advised that we learn to think and act as a minority . . . which we are . . . and which we haven't really learned to accept yet. It's obvious that being a minority doesn't mean the end of the world, but it does mean that we

must try harder and work more effectively at presenting our viewpoints.

Actually, it's later than we think. Reapportionment will only make official a situation which already exists.

At a meeting called to hear what the New York State Office of Regional Development had to say about the organization and development of the twelve areas of the State, the list of potential members to help plan for the Finger Lakes area was read off. This state-appointed committee would work with the 5-county regional planning committee already formed.

Mind you, these are the people who will plan the use of the land of the area. The Chambers of Commerce would be represented, the Council of Churches, industry, labor, a representative of the educational system, people from county and local government, someone to represent the governmental agricultural agencies, the county planning boards, and about this many more representatives from the State Department offices. So far so good. There's no quarrel about these folks having representation. A representative from agriculture would have to be quite vocal and effective to have much influence on such a committee. Actually, no commercial farmer was included or considered on this state-planning committee until Doris suggested that it might be appropriate for the largest indus-

try in the area to have representation. To this there was no objection.

The point is, agriculture as such wasn't even included, and farmers own the biggest share of the land this group will blueprint for various uses. It kind of brings home what being a minority can mean.

From being a minority to being forgotten and ignored can apparently be accomplished in one easy step if we let it happen.

I'm reminded of the reply the girl made when asked if it was true that blondes had more fun. She said they did. Next question: "Why?" Answer: "Because they try harder." If we are going to have "fun" in public affairs seems like we are going to have to try harder!

FRUSTRATION

I'm for progress and mechanization . . . and maybe even automation around the barn and in the house . . . but I've about reached the end on one item. All of us cheered at low-priced convenient equipment when ball point pens hit the market. I'm still enthused about them . . . if we could only keep one ready to go when needed.

We've been buying them a dozen at a time (not to mention all of those accumulated as advertising from our business friends) and it's no exaggeration to say that they cause more exasperation (cussing) than anything else around the place.



"Most useful machine on my place"

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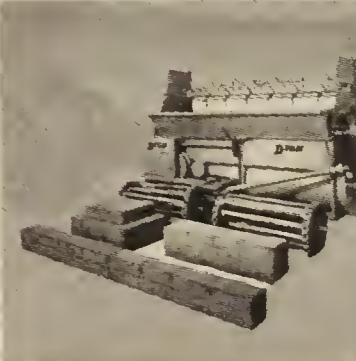
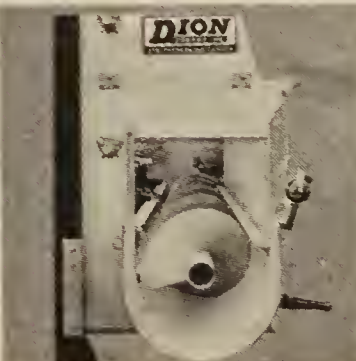
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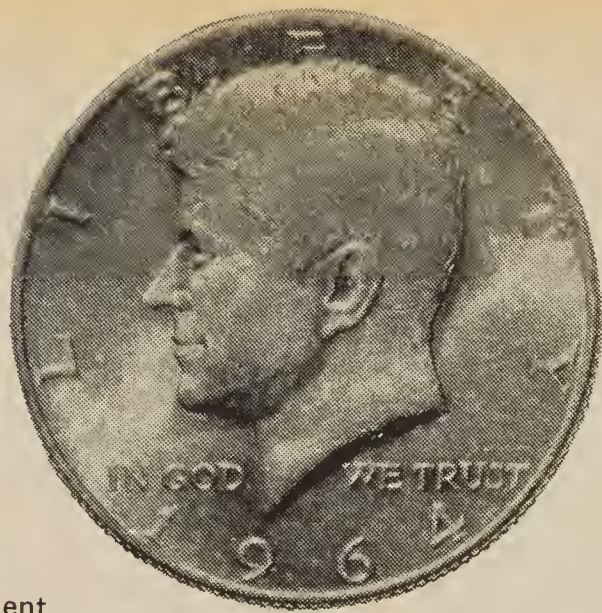


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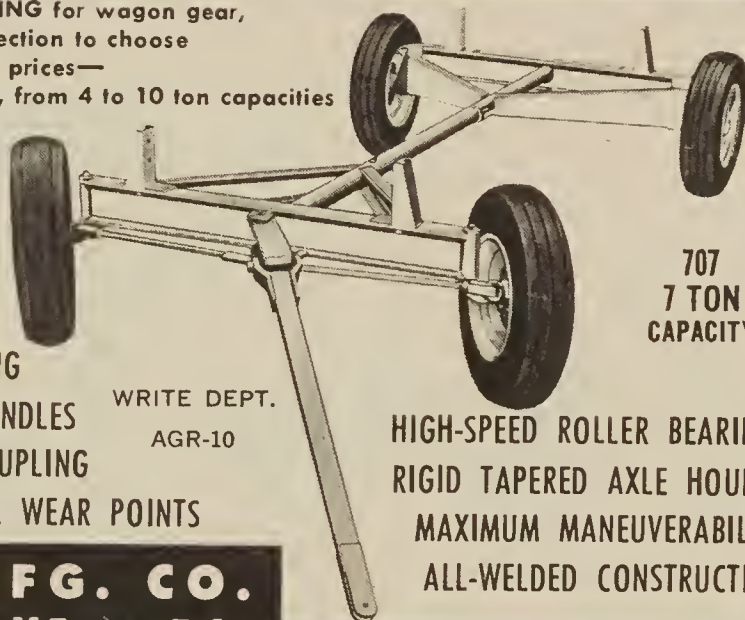
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Food For The Spirit



by Robert Clingan

A PORTABLE WALL

Dr. Henry Leiper, currently in charge of the Religious Department at Chautauqua, tells of a visit to Japan. After fellowship with Japanese Christians for several days, Dr. Leiper told his friends that he was amazed at the ease of communication. He had been told of the unsurmountable wall that he could expect to find, a wall between East and West, Asiatic and Occidental, Japanese and American. Yet, to his pleasure and surprise, he had found no wall. To this one of his Japanese hosts replied: "Perhaps you found no wall because you did not bring it with you."

This insight could very well apply to many situations. We find barriers to communication difficult to penetrate. Walls face us wherever we turn. Walls stand in the way of communicating with people of other nationalities, other countries . . . even communities we visit only a few miles from where we live.

Whenever this happens, we ought to remember the story of Dr. Leiper's visit to Japan. Is the wall of their creation or ours? Is it something that was already there before we came, or something we brought with us? Did we bring our own wall?

The late Robert Frost was a beloved poet of eternal values laid hold of by a man who knew the ways of life in a rural community, and on a New England farm. In his poem "Mending Wall" he describes two farm neighbors who repaired the line fence (a stone wall) each spring. The poet-farmer-author could no longer see the reason for a fence when neither kept any livestock at all; yet each spring his neighbor insisted that the wall be repaired from the ravages of winter and the heaving of frost and thaw. To his every objection his neighbor replied: "My father always said: 'Good fences make good neighbors.'" To this Robert Frost replied: "Only when there are cows."

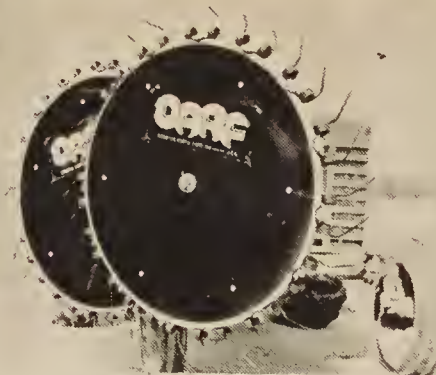
To be a real neighbor in the community, the nation, and the world, is to breach the walls, establish lines of communication, and, wherever we go, to remember to leave our walls behind.

DISCOVERY

Daily bread, daily chores,
Kitchen, waiting soil —
An aching back and weary mind
From uninspired toil
Had shaped her ordinary life
Into a hopeless thing
Until she saw the scarlet flash
And felt her spirit sing.
The delicate red chalices
Of flowers in the grain
Lifted up her tired heart
And made the pattern plain.

— Miriam Ashley Kozelka

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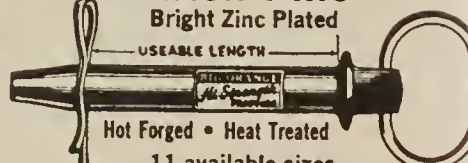
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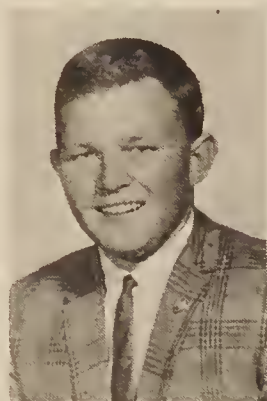
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Beef Awards — A pioneer breeder of Hereford cattle, Eugene P. Forrestel of Medina, New York, was presented with the "Cattleman of the Year" award. Mr. Forrestel has been a key leader in the beef cattle industry, has helped and encouraged many farmers to start commercial and registered beef herds across New York State during the past 34 years, and was instrumental in forming the New York Beef Cattlemen's Association. He was a leader in the formation of the Empire Livestock Marketing Cooperative, Inc., and served as its president from 1946 until 1964.



Eugene Forrestel

The "Outstanding 4-H Beef Club Member Award" for 1965 was presented to John Good of Perry, New York. The 17-year-old 4-H member was cited for outstanding accomplishments with his beef projects, which included the State beef achievement award and an all-expense trip to the 44th National 4-H Club Congress in 1965. He has built up a herd of registered Herefords, at the same time has fed, fitted and shown 12 steers. Cited — Professor A.M.S. Pridham of Ithaca, James S. Spero of Middletown, and Derwood G. Burns of Batavia . . . all in New York State . . . will be presented Awards of Merit by Lambda Chapter of Epsilon Sigma Phi on April 11.



John Good

Professor Pridham, 40 years with the department of floriculture and ornamental horticulture, will be recognized for research and field testing of chemicals for control of problem weeds. This information has been of particular value to nurserymen, and has provided control of Japanese bamboo, mugwort, and quackgrass.

James Spero's citation is for his leadership in establishing the Volunteers in Service to America (VISTA) program in Orange County. This was done "while maintaining an already-full 4-H program." He has been a 4-H agent for 15 years.

Derwood Burns has been Extension agent in the agricultural division, Genesee County, for two years. He will be cited for the guidance, assistance, and encouragement given in establishing a county resource development committee.

Conference on Natural Beauty — The nation's first county-wide conference on natural beauty was held at Nyack, Rockland County. William O. Douglas, associate justice of the U. S. Supreme Court, and Mrs. Frank Church, wife of Idaho Senator Frank Church . . . and special representative of Mrs. Lyndon B. Johnson . . . were speakers.



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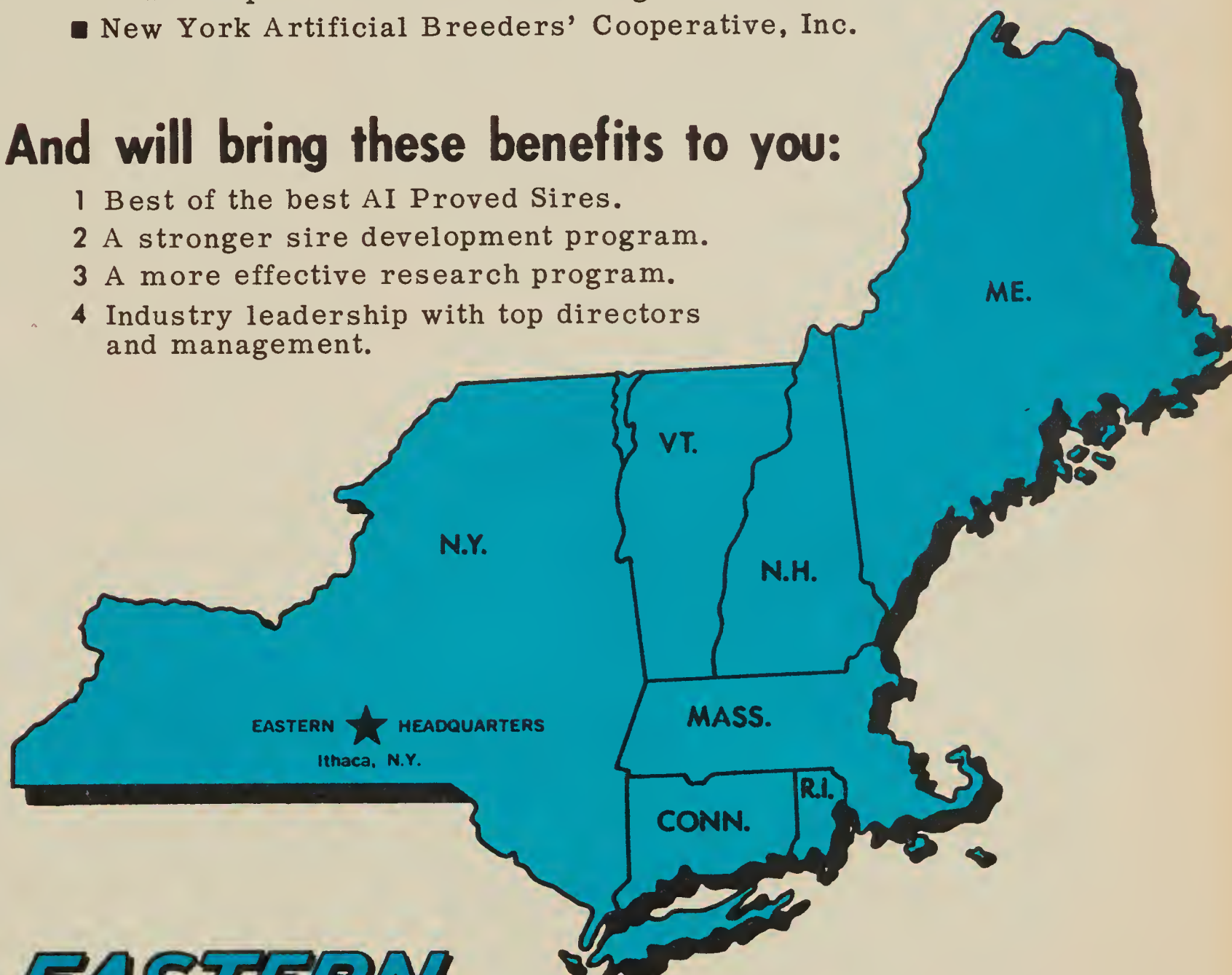
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SWEET ENDINGS

for Springtime Meals

by Alberta D. Shackelton

Very impressive, but actually easy to prepare, is this Strawberry-Lemon Alaska.

Photo: Betty Crocker



NO MATTER how good the main part of a dinner may be, it's dessert that "makes the meal!" The recipes given on this page are favorites among my friends. I think you will enjoy making and serving them, and possibly they will give you some ideas for your own variations.

ORANGE BLOSSOM ANGEL FOOD CAKE

- 1 cup sugar
- 4 tablespoons cornstarch
- 1/2 teaspoon salt
- 1 cup fresh orange juice
- 2 tablespoons grated orange rind
- 1 1/2 tablespoons lemon juice
- 2 tablespoons butter
- 1 10-inch tube angel food cake (your own recipe or a mix)

Combine sugar, cornstarch, and salt. Stir in the orange juice slowly. Bring mixture to a boil with constant stirring and cook 1 minute longer or until thickened. Remove from heat, stir in orange rind, lemon juice and butter; cool. Makes about 1 1/2 cups.

Split cake into 3 even layers. Put layers together with Orange Filling, using about 1/2 cup between each layer and remainder to garnish top of cake.

STRAWBERRY-LEMON ALASKA

- Lemon Chiffon Cake Mix
- 2 pint bricks strawberry ice cream
- 5 egg whites
- 1/8 teaspoon cream tartar
- Dash salt
- 2/3 cup sugar

Bake cake in oblong pan, 13 x 9 1/2 x 2 inches and remove from pan. Cut a 5-inch lengthwise strip through center of cake. (Save smaller strips to use later).

Place strip of cake on baking sheet or bread board. Cut bricks of ice cream in half horizontally and fit on top of cake. Cakes should be about 1 inch larger on all sides than the ice cream. Place in freezer until ready to frost (at least 2 hours). Remove from freezer 15 minutes before serving.

Beat egg whites until foamy. Add cream tartar and salt and continue to whip until stiff but not dry. Gradually beat in sugar until meringue stands in stiff, sharp peaks. Spread meringue over cake, completely sealing ice cream and cake (spread thicker over ice cream and thinner around cake) and swirl into peaks.

Bake in very hot oven (450 to

500) for 3 to 5 minutes, or until the meringue is a light brown. Let stand for a few minutes for easier cutting. Slice carefully onto platter, using pancake turner and spatula. If platter is large enough, garnish with sweetened strawberries and mint leaves if available.

Note: In place of making meringue as described above, you may prepare 2 packages of Fluffy White Frosting Mix according to package directions. Also, you may completely prepare the Alaska, place in freezer, and at serving time, whisk into a preheated hot oven to brown the meringue.

MERINGUE LAYERS MELBA

- 6 egg whites
- 2 cups sugar
- 1 tablespoon vinegar
- 1 tablespoon vanilla
- 3 small packages frozen raspberries, thawed
- 2 tablespoons cornstarch
- 1/2 cup currant jelly
- 1 quart vanilla ice cream

Beat egg whites until stiff but not dry. Gradually beat in the sugar, adding last 1/2 cup alternately with vinegar and vanilla. Continue to beat until stiff and glossy.

Mark two 9-inch circles on heavy brown paper cut to fit a cookie sheet (moisten back so paper will adhere to pan). Divide the meringue mixture between the two circles, smoothing one circle over the top and making a swirling design on the second one.

Bake in a slow oven (275 to 300) about 60 minutes. Turn off heat and allow meringue to remain

in oven 20 minutes longer. Remove carefully from paper.

Soften ice cream slightly, stir in 1 package of berries, press into a foil-lined 9-inch layer cake pan, and return to freezer.

For Melba Sauce, drain berries from other 2 packages. Combine juice with cornstarch, boil a couple minutes until thickened, and stir in currant jelly. Cool slightly and stir in raspberries.

To assemble: Place flat-topped meringue on plate, top with frozen layer of ice cream, and then swirl-top layer of meringue. Cover and return to freezer. Cut in wedges to serve with Melba Sauce. Serves about 12.

MARGUERITE'S REFRIGERATOR DESSERT

- 2 small pkgs. semi-sweet chocolate pieces
- 1 tablespoon sugar
- 4 egg yolks, beaten well
- 1 teaspoon vanilla
- 1/4 teaspoon salt
- 4 egg whites, beaten stiff with 1 tablespoon sugar
- 2 cups heavy cream, whipped
- 1 small or 1/2 large angel food cake broken into pieces
- 1/2 cup toasted, blanched almond slivers

Melt chocolate and sugar over hot water and stir until smooth. Stir in the beaten egg yolks until slightly thickened. Cool.

Arrange one-half of cake pieces in a shallow pan. Fold whipped cream, beaten egg whites, and nuts into chocolate mixture. Pour one-half of this mixture over cake pieces in pan. Add another layer of cake pieces and remainder of the chocolate mixture. Chill.

Cut in squares to serve, topping

each with whipped cream and maraschino cherry set in 2 or 3 mint leaves. Serves about 12.

APRICOT GEELE

- 1 large can apricot halves
- 1/3 cup lemon juice
- 1 1/2 cups sugar
- 1 cup water
- 2 tablespoons plus 1 teaspoon unflavored gelatin softened in 1/4 cup cold water
- 1 cup heavy cream, whipped
- Lady fingers

Force apricots through a sieve, or whisk in blender first and then sieve, if necessary. Add the lemon juice. Cook sugar and water to medium thickness, add softened gelatin and stir until dissolved. Combine with fruit mixture. Chill until partially congealed and fold in the whipped cream.

Pile by spoonfuls into sherbet glasses and place four single lady fingers around edge of glass. Garnish with whipped cream topped with an apricot half. Serves 6 to 8.

PECAN TORTE

- 3 cups pecans
- 2 tablespoons flour
- 2 teaspoons baking powder
- 1/4 teaspoon salt
- 6 egg whites
- 1/8 teaspoon cream tartar
- Dash salt
- 1 1/2 cups sugar
- 6 egg yolks
- 1 teaspoon vanilla
- 1 cup heavy cream, whipped

Chop the pecans very fine (you should have about 2 1/2 cups). Blend pecans with flour, baking powder, and salt. Beat egg whites until foamy, add cream tartar and salt; continue beating until whites are stiff with moist peaks. Gradually add 3/4 cup of the sugar, beating constantly until sugar is dissolved and there are shiny, stiff peaks.

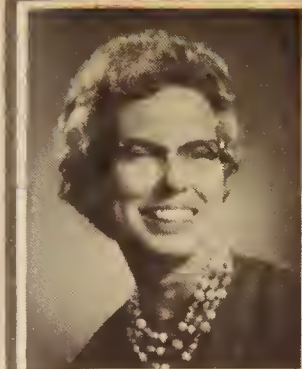
Beat the egg yolks until thick and lemon colored; add vanilla. Gradually add the remaining 3/4 cup sugar, beating constantly for a couple minutes. Fold in the nut mixture; fold in egg white mixture.

Pour into 2 round 9-inch layer cake pans, lined with buttered wax paper. Bake in moderate oven (350) about 30 minutes or until layers test done. Allow to cool in pans for a couple of minutes, then turn onto cake racks and remove wax paper. Cool thoroughly; fill layers and garnish top with sweetened, flavored whipped cream. Cut in wedges to serve.



Pecan Torte is an elegantly simple dessert, fit for a king!

Photo: J. Walter Thompson



VISITING

with
Home Editor Augusta Chapman

Back in 1964, I told you about seeing Elsie Masterton of Blueberry Hill Farm in Brandon, Vermont, at the New York State Exposition. We corresponded after that "Visiting" article in AA, and at last year's Fair, I had the pleasure of meeting Elsie and her three daughters. She was as nice as I knew she'd be.

Elsie invited me "back-stage" to taste the delicious looking desserts she'd just made, and what fun it was! (I'd always wondered what happened to all the mouth-watering dishes prepared in the demonstration kitchen...) The Masterton girls were right there, as eager to sample the desserts as I was, and that in itself is a pretty good recommendation for any mother's cooking.

To make the occasion even more enjoyable, Elsie presented me with an autographed copy of one of her cookbooks to add to the one Phil had given me for Mother's Day. Elsie's cookbooks are in a class by themselves... it's fun just to read them, and the recipes are excellent and often quite unusual. She writes in the same chatty style, with all the interesting side comments, she uses for demonstrating.

The three books in the order written are Blueberry Hill Cookbook, Blueberry Hill Menu Cookbook, and Blueberry Hill Kitchen Notebook; I'm sure you'll like them.

And now that spring has officially arrived and those first pink rhubarb stalks will soon be up, here is a recipe for Rhubarb Creme, one of the desserts Elsie demonstrated at Syracuse.

RHUBARB CREME

6 cups cubed rhubarb
2 to 3 cups sugar
2 cups heavy cream

Place rhubarb and 2 cups sugar in top of double boiler and cook over rapidly boiling water until rhubarb is just tender, not falling apart. Stir it once or twice and taste. Should rhubarb be particularly tart, you might need as much as another cup of sugar to make it sweet enough. Remove from heat and allow to cool to room temperature.

Whip heavy cream until stiff and stir it into the rhubarb mixture. Pile into a bowl and allow to cool all day in the refrigerator. 4 to 6 servings.

Apple Nut Thing is another of the desserts I sampled that day. Elsie says, "It's neither pie nor cake; it's just a 'thing,' as our girls call it!"

APPLE NUT THING

1 cup sifted cake flour
4 teaspoons baking powder
1 teaspoon salt
4 eggs
2 cups light brown sugar

2 teaspoons vanilla
2 cups chopped pecans or walnuts
2 cups peeled tart apple cubes
1 cup heavy cream
2 teaspoons sugar
1 teaspoon sherry

Sift together the sifted cake flour, baking powder, and salt. Cream the eggs and brown sugar and add flour mixture to creamed mixture. Then add vanilla, nuts, and apple cubes.

Mix it all up and bake in two 10-inch pie plates at 350 degrees F. for 30 minutes. Use butter to grease pie plates. Cool in the plates.

When cool, cut as you would a pie and serve with sweetened, flavored whipped cream.



Easier Ironing

Some weeks ago, my friend Kate Urquhart of Allied Chemical Corporation sent me a new attachment for my electric iron. It's called an "Iron-Glider" and has a smooth coating of TFE plastic (Allied Chemical product), the same material used in no-stick cookware.

The Iron-Glider slips on and off any standard household iron in a jiffy and makes it possible to iron all garments on the right side without using a pressing cloth — no scorching, no sticking, no shine! I have tried this for pressing woollens, and it works very well.

Tri-Point Industries, Inc. of Commack, L.I., New York, makes the attachment, and department stores in the Northeast should have it by this time at a price of about \$3.00.

Send for These

"Easy Ways To Delicious Meals," a new Campbell cookbook, gives 465 recipes using convenience foods. Available for 50 cents and 3 labels from any Campbell product. Send with name and address (include zip code) to: "EASY WAYS," P. O. Box 732, Maple Plain, Minnesota 55359.

"The Proof of the Pudding" has more than 100 dessert recipes starring Jell-O-Instant Pudding. Available free for 4 Jell-O-Instant Pudding box tops or for 25 cents and 2 box tops. Send with name and address, including zip code, to: Proof of the Pudding, P. O. Box 1312P, Kankakee, Illinois 60901.

American Agriculturist, April, 1966

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If you would see this beautifully printed and illustrated book you would surely buy it. It contains nearly 300 pages, over 100 old-time pictures, and is chockfull of personal family stories of how folks worked, played and lived around the turn of the century.

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Photo: Kelly Bros. Nurseries



Forsythia Lynwood Gold is a splendid new variety with erect branches, literally covered with golden yellow flowers.

April is

FORSYTHIA MONTH

by Nenetzin R. White

TO ME, spring means Forsythia. It's true there are earlier colors in the bulbs, such as eranthis, snowdrops and crocuses, but the first real splash of strong spring color is Forsythia.

Here in Ithaca, New York, we are fortunate in having many community plantings, as well as those on private grounds, and at one time it was suggested that Ithaca be called the Forsythia City. Truly, around mid-April, our whole area seems to become a cloud of cheerful yellow.

Most Forsythia buds are hardy through Zone 5 (F. viridissima is only considered hardy through Zone 4). Consult a local nurseryman if you are not sure of your zone.

There are two main groups of Forsythia or Golden Bells as they are sometimes called. The first, Forsythia intermedia, is made up of vigorous, long living, upright types. A few of these have an arching habit. The other group, Forsythia suspensa, arches or trails, and can be treated as a vine. Today there are also many dwarf varieties.

New Varieties

Of the Forsythia intermedia types, there are several new-named varieties which should be planted in preference to the older ones. Lynwood Gold, which grows to 7 feet, has excellent deep green foliage, erect branches, and is completely covered with deep yellow flowers. Spring Glory is very floriferous, growing 6 to 8 feet tall with large, pale primrose-yellow flowers.

Beatrix Farrand is another striking new variety, with golden flowers more than 2 inches across and growing 6 to 8 feet in height. Arnolds Giant is an introduction from the Arnold Arboretum of Boston and has large giant-sized flowers.

In the Forsythia suspensa group, F. suspensa sieboldi grows to about 4 feet and has a trailing or weeping habit. It is excellent for planting on overhanging walls, terraces, and banks. Branches touch the ground and root, so it helps to hold the soil in place. With pale yellow blossoms, it is the best of the suspensa varieties in my opinion.

There is also a new English or

North Wales variety with ivory-yellow flowers which is now being tried at the Arnold Arboretum. It is tall but also drooping in habit. Another good Forsythia suspensa is F. s. Fortunei, with deeper yellow flowers.

Of the dwarf Forsythias, I will list only the proven varieties. Of the intermedia types, F. s. Fortunei nana, F. intermedia "dwarf," and F. compacta nana are much alike in that they are wide spreading. F. viridissima Bronxensis (hardy in Zone 5) appears to be a fascinating new variety. Extremely dwarf (12-18 inches) and slow growing, with bright yellow flowers, it is the freest flowering of the dwarfs. I've seen it used at the Arnold Arboretum as a ground cover, and it did a first-rate job.

Easy To Grow

With this many varieties, it seems as if every home planting should contain a few of these heralds of spring. They are as disease free as any good shrub and very tolerant of soil, except that they resent

wet locations and poor drainage. A good loamy soil is best, and they do need sunlight to flower well. Pruning should be done immediately after blooming to insure flowers for the following spring.

Spring in January — Next Year

Put in an extra plant or two for forcing. Anytime from January on, you can bring branches into the house and force them into bloom. I am fortunate in having a nursery to supply me with branches of these lovely plants to force.

Usually in February, Phil and I make a trek to one of the Forsythia blocks where we cut two large arm loads of branches. I put these in the cellar in large pails of water and start giving them away. We keep thinking of shut-ins, people with children, good gardeners, and friends. Usually we have to make another trip to have any for ourselves. This is a lot of fun, and you'll enjoy the feeling of spring in your home, as well as the wealth of color outdoors in April.

What's Your Hobby?

Potholders

One of my hobbies is making Sunbonnet Sue potholders. Each one takes a piece of material about 12" x 7". They make nice gifts and sell like hotcakes at church or Grange sales. I will send a pattern to anyone who sends a stamp. — Mrs. Raymond Hayward, Derby, Vermont.

Collects and Crochets

I have many hobbies which include collecting authentic milk glass (500 pieces) and Bennington pottery (25 pieces plus 15 cuspidors).

I also crochet costumes for character dolls and would like to buy or borrow patterns for costumes. — Mrs. Helen Demmon, Delevan, N.Y.

Aprons

My hobby is sewing aprons and collecting unusual apron patterns. I also collect coins and weave rugs. Would like to hear from others with similar interests — Mrs. Pearle Burdick, Route 1, Carbon-dale, Pa.

Calling Cards

My hobby is collecting calling cards. Grandmother had many of the real old cards and gave them to me. These are mounted in albums. For the past 30 years, I have kept business calling cards so that my collection probably numbers into the thousands. Would welcome letters and cards from other collectors. — Mrs. Quinten R. Pratt, Munn Rd., Monson, Mass.



EASTER

by Ann Dimmock

Love let Him go to the cross with its pain,
The cup of His suffering not taken away;
But love brought Him back, to live again
In the hope and joy of our Easter Day.

American Agriculturist, April, 1966

The Clothes Line

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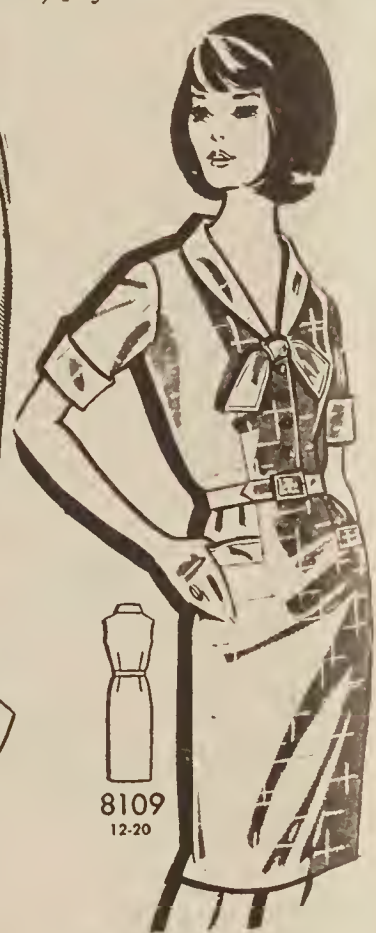


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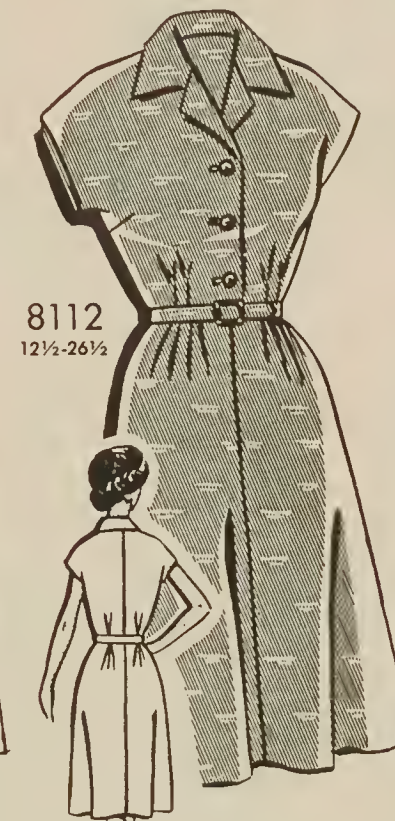


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STRAWBERRIES, RASPBERRIES, BLUE-BERRIES, Blackberries. Write for free catalog describing 70 small fruit varieties including—Frontenac, Catskill, Premier Vesper, Sparkle, Earldawn and Ozark Beauty Ogallala, Geneva Everbearing strawberries, also Latham, Madawaska, Durham and new Fall Red Raspberries. Walter K. Morss & Son, Bradford, Mass.

LIKE SWEET ONIONS? New Blue Ribbon Assortment 600 sweet onion plants with free planting guide \$3.00 postpaid fresh from Texas Onion Plant Company, "home of the sweet onion," Farmersville, Texas 75031.

BLUEBERRY PLANTS—12 Choice Varieties. Rhubarb, asparagus roots, raspberries, strawberries, flowering shrubs, fruit trees. Free Catalog. Commonfields Nursery, Ipswich, Mass. 01938.

CERTIFIED TOMATO, PEPPER, cabbage, onion plants. Write for free catalogue—price list. Satisfaction guaranteed. Evans Plant Co., Dept. 2, Ty Ty, Georgia.

STRAWBERRY—Red Raspberry plants. Fresh Dug. Guaranteed to grow. Eureka Plant Farm, Hastings, N. Y.

STRAWBERRY PLANTS: ARMORE, Sure-crop, Fairfax, Robinson, Catskill, Sparkle \$3.95—100 Everbearing; Superfection; Ozark Beauty \$4.95—100 Latham Rasp. \$9.95—100 Postpaid. Perkins Berry Farm, RD#1, Box 230, Hudson Falls, N. Y.

CERTIFIED RASPBERRY PLANTS, Taylor red, New Viking red, Latham red, \$8.50 each 100, fresh dug in spring. MacDowell Berry Farm, Ballston Lake, N. Y. 12019.

CREeping PHLOX, IRIS, Daylilies, Asters, Snapdragons, Liriope, Violets, Periwinkle, Shasta Daisies, Candytuft, each 12 for \$1.00. Free Catalog. Planters Nursery, McMinnville, Tenn.

BERRY PLANTS, ROOTS. Temple, Stelemaster, Catskill, Sparkle, Robinson, Vermillion, Empire, Fairfax. 25—\$2.00; 50—\$3.00; 100—\$4.25; 1000—\$22.00; 2 yr. asparagus 25—\$2.25; 50—\$3.25; 100—\$4.50; 1000—\$22.00. Victoria Rhubarb 6—\$2.25; 12—\$3.75. Horseradish 12—\$9.00; 100—\$3.85. Prepaid. Price list on request. Field Plant Farm, Sewell, N. J. 08080.

STRAWBERRIES — ASPARAGUS — RED RASPBERRIES—Canada Red Rhubarb Roots. Giant Robinson Strawberries \$2.25—100; postpaid—17 certified varieties. Free List. Facer Farm Market, Phelps, N. Y.

STRAWBERRY PLANTS, FROM virus free stock. Catskill, Howard 17, Sparkle, Robinson, 100—\$4.00, 500—\$13.50, 1000—\$25.00. Earldawn, 100—\$4.50, 500—\$15.00. Ozark Beauty, (Everbearers) 100—\$6.00. Raspberry plants, Latham and September (Everbearing) 25—\$3.00, 50—\$5.50, 100—\$10.00. Asparagus Roots, Mary Washington, large one year, 100—\$4.00, 500—\$13.00, 1000—\$24.00. Two year, 100—\$6.00, Victoria Rhubarb, 3—\$1.50. Horseradish, 12—\$1.00, Postpaid. Drews' Nursery, Agawam, Mass. 01001.

SEEDS

FREE 1966 FARM AND GARDEN Seed Catalog, featuring Berry's famous "Gro-Coated" Brand seeds. Write today. Berry Seed Co., Box 347, Van Wert, Ohio 45891.

INDIAN CORN—SELECT Colors—1 Lb. \$1.00; Pkt. 25¢. Strawberry Popcorn—1/2 Lb. \$1.00; Pkt. 25¢. David Hoffman, RD2, Box 429, Red Hook, N. Y. 12571.

SEED POTATOES

BLUE VICTOR—BLUE Christy, seed potatoes. Jack Tominson, Stanley, N. Y.

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SPARROWS EAT PROFITS! Get new, improved trap. Guaranteed satisfaction. Free particulars. Roy Vail, Antwerp 10, Ohio.

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SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

SILOS—FACTORY CREOSOTE Treated Wood. Maximum insulation against frozen ensilage and absolute acid resistance. Dependable lock-doweled wind-resistant construction. Immediate delivery. Box BS-46, Unadilla Silo Co., Unadilla, New York.

SITUATION WANTED

WORK WANTED—Man, experienced, estates, caretaker, farms. References. Good home, small wages. George Simon, Box 83, Hensonville, N. Y.

HOMEMAKER, COMPANION, 63, active, sober, nonsmoker, seeks permanent modern home anywhere. 1 person preferred. References exchanged. Box 369-HF, Ithaca, N. Y. 14850.

WORKING FARM MANAGER, fifteen years' experience with dairy, beef, hogs, grain, estate management. Married, year and half college. Excellent references. Box 369-HK, Ithaca, N. Y. 14850.

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PLASTIC POSTED—Land Signs. Durable, inexpensive, legal, free sample. Minuteman, Stanfordsville, New York.

NO HUNTING SIGNS, Mailbox—Lawn Markers, Farm Signs, Special Signs, Printing all kinds. Sample catalog. Signs, 54 Hamilton, Auburn, New York 13021 Dept. G.

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OLD STAMPS WANTED—I pay \$250 each for 1924 1¢ green Franklin stamps, rotary perforated eleven (\$2,500 unused). Send 20¢ for illustrated folders showing amazing prices for old stamps, coins, collections. Vincent, 85AA4, Bronx, New York 10458.

100 Diff. U.S. Stamps 25¢. 100 Diff. World-wide 15¢. Arthur Sibley, Box 222, Uxbridge, Mass.

STRAWBERRIES

STRAWBERRY-PLANTS. STATE inspected. Early, Midseason, late and everbearing varieties. Send for free variety list and prices. Carlton N. Smith, South Street, East Bridgewater, Mass.

THOMPSON'S VIGOROUS STRAWBERRY Plants. Grown from virus free stock. Howard 17, Catskill and Sparkle. 25—\$1.50; 50—\$2.75; 100—\$4.25; 300—\$9.50; 500—\$14; 1000—\$24, postpaid, ready to set. State Inspected. Glenn Thompson, Johnson, Vermont.

STRAWBERRY PLANTS—State inspected trimmed ready to set. Howard, Premier, Catskill, Sparkle, Red Glow, Surecrop from virus free stock. Also Maine 55. 100—\$3.50; 500—\$12.00; 1000—\$22.00 Postpaid. Gem and Streamliner Everbearing 100—\$5.00. Tel. Wilson 948-2271. Adrian Sidelinger, Burnham, Maine.

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TIRE CHAINS for passenger cars, farm tractors, trucks, graders, Heavy duty—Low prices—Prompt shipment. Write for complete tire chain catalog to: Southern Parts Corporation, 1268 N. 7th, Memphis, Tenn.

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ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced escorts take care of everything for you—even tipping. For details on our future tours, write American Agriculturist Tours, Box 370, Ithaca, N.Y. 14851.

WANTED TO BUY

WANTED—HORSE DRAWN CARRIAGES, surreys, wagons, coaches, sleighs, old cars. Send price, description and picture, if possible, in first letter. Arnold G. Carlsen, 77 Anderson Street, Hackensack, New Jersey.

I BUY LEADED GLASS light domes and leaded glass table lamps. Address to read A. G. Carlsen, RR #1, Box 48, Colt's Neck, N. J.

\$50.00 REWARD LEADING TO purchase open antique car. Box 722, Paterson, N. J.

WANTED: FREAK ANIMALS, birds, Fays—Madrid, N. Y. or Call NE4-7807.

WHITE CEDAR STAKES, ten feet long, 3" diameter at top, pointed one end. Quote price per 1000 delivered New Rochelle, New York. Webster Shrub and Tree Experts, 514 Main Street, New Rochelle, New York.

WANTED TO RENT

DAIRY FARM for 100 head. State conditions of buildings, acreage information concerning milk market. Box 369-GY, Ithaca, New York 14850.

WOMEN'S INTEREST

RAISE RABBITS for us on \$500 month plan. Free details. White's Rabbitry, Mt. Vernon, Ohio.

MONEY IN DONUTS—Make new greaseless donuts in kitchen. Sell stores. Free recipes. Duncan 3605 South 15th, Minneapolis 7, Minnesota.

WALLPAPER SALE: FINAL clearance all 1965 patterns. Write for your Free catalog at once. Sensational savings. We pay postage. Burlington Trading Post, 1800 Burlington, North Kansas City, Mo.

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FREE NEEDLECRAFT CATALOG! Embroidery, Knitting, New Ideas! Merribee, Dept. 710, 1001 Foch, Fort Worth, Texas 76107.

TWELVE DOZEN DIFFERENT kinds buttons, one dozen each kind, fine quality—various sizes (144) Blue-Brown-Gray-Etc. 100 Needle Book plus threader, Postpaid. \$1.25; 2 for \$2.25; 3 for \$3.00. Better Products Co., P. O. Box 483, Watertown, N. Y. 13601.

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SEND YOUR WOOL to the blanket Mill for nice warm blankets, knitting yarn and comfort batting. Write for particulars. Shippensburg Woolen Mill, Shippensburg, Pennsylvania.



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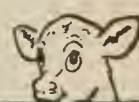
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April, April, laugh thy girlish laughter;
Then a moment after, weep thy girlish tears. — William Watson

THE APRIL IN US

How much the changing seasons in this north country of ours are like our own changing moods! For example take April; one day the sun comes up bright, warm and shiny. Then suddenly it gets into a fight with old man winter and comes out second-best, with a light frost or maybe some snow on the ground.

So it is with us. We start out in the morning with everything going

for us. Then something happens that makes us mad or sad, and bingo, the day is spoiled!

But finally Spring wins more and more battles with winter, and summer is here again. If our "mad" doesn't last too long, and if we keep plugging away doing the best we can, things finally will smooth out pretty good and life is liveable again.

THE TEEMING BILLIONS

Can United States farmers feed the whole world? To answer that question take a look at population figures. World population now is about three billion people, and millions of them are starving or undernourished. Countries like China and India just can't keep up even now with the food supply for their swarming millions.

But the experts tell us that the world population will double . . . from three billion to six billion . . . in thirty-five years.

According to my friend Earl W. McMunn, editor of the most excellent farm paper, *The Ohio Farmer*, there were only about 250 million people in the world in Jesus' time. It took 1600 years to double this number to 500 million. Then, in the 300 years from 1600 to 1900 world population increased three times. In the last 65 years world population has doubled again, and by the year 2000 (that is in 35 years more) it is expected to double again!

So much for increases in world population. How about increases here in the United States? In 1800 there were only about five million people in the United States. In 1900, just one hundred years later, our population had increased from five million to about seventy-six million. And since 1900, when I was a boy, it has jumped to one hundred seventy-eight million people . . . and is still jumping by leaps and bounds.

We think we have a traffic problem now. What will it be twenty-five . . . or even five years from now? Crime will continue to increase rapidly; so will taxes, for there are more children to educate, more old people on relief. There will be more and more regulations and laws restricting and destroying our liberties. You can hardly think of a problem that won't become more difficult as population increases.

But our fathers had problems too and solved them, and so will our children solve theirs.

One thing is sure . . . there will be people, people, people all the

time, everywhere . . . all of whom must eat food grown by a rapidly-diminishing number of farmers who will get good prices for their products . . . and our children and grandchildren will wonder what we were worried about when we talked about surplus food!

"A THING OF BEAUTY

IS A JOY FOREVER"

An elderly farmer friend said to me rather sadly the other day that with the great revolution that has taken place in farming in the last few years, we have lost some of the joy of country living. "Farming," he said, "has become a cold, hard business and in the hurry and strain of making a living we are forgetting how to live, how to enjoy life."

What my friend forgets is that farming always was a hard life, and that it seems better in retrospect than it really was. Nevertheless there is some truth in what he said . . . and what thousands of other older farmers think. It's easier really to enjoy the turning of sod with a good plow, pulled by a fine team of horses, than it is from a high seat of a tractor.

But it is not necessary to lose all the happiness of country living just because the methods of farming have speeded up and changed. There is a grand project started in this country now called "Beautifying America," and I am all for it. Everyone can have a part . . . and everyone who takes part will be richly repaid in personal satisfaction.

Beautifying America has many angles, most of which start right on your farm and in your community. For example, why not start by cleaning up your own place right where you live. It's disheartening to ride through the country almost anywhere and see the homesteads of otherwise good farmers littered with broken-down equipment and trash of every kind and description. One wonders what the

inside of a home must be like when the outside is so unsightly.

Every country home is worthy of a good well-kept lawn. Now is the time to get started with some well-placed shrubbery, and some old-fashioned annual and perennial flowers that will require only a little care.

Nothing will brighten a place more and make you more proud of it than newly-painted buildings.

When it comes to beautifying the community help the officials make it tough for the litterbugs.

What about the unsightly smoking, stinking dump? Can it be better placed and controlled? What about getting the subject of "How to make our community more beautiful" discussed and acted upon at your local meeting?

The country is the best place in the world to raise children, but not if they grow up in an unsightly environment. The two great basic objects of country life are to make a living and to live a happy life. The environment in which you and your children live is just as important as it is to make a living.

LET'S TAKE A TRIP

Most older people keep thinking about the past and the pleasant and happy times they had when they were young. But memory has a pleasant way of forgetting the unhappy events of the past and remembering only the good times. It is fortunate that we can't really turn back the calendar or the clock. If we could, we would soon wish that we were back to now, even with all its problems.

But the next best thing actually to visiting the past in person is to read a book that will carry you back in spirit to the days of your youth. Such a book is Ed Eastman's "Journey to Day Before Yesterday." Not only will this rollicking story of the old days make you laugh . . . and sometimes almost make you cry . . . but the many pictures of old-time scenes will seem as if they were out of your own life.

Young people, too, are enthusiastic readers of "Journey to Day Before Yesterday" because they like to read of the scrapes and adventures that Grampa and Gramma got into when they were young.

Out of the many enthusiastic letters that come from readers of "Journey to Day Before Yesterday" there has not been a single complaint except when there was delay in delivering the book. One reader said: "No wonder the publisher couldn't keep up with the orders." But reprintings have

taken care of that complaint and orders are filled promptly.

For old or young this is a great book to read and reread, and to give to a friend. To get a copy send \$5.95 check or money order, (New York residents add 12 cents tax) to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York — M.E.R.

TIME FOR DECISION

Did you ever stop to think that what you do as a farmer or a gardener in April and May determines your work for all the rest of the season, and the success or failure of your crop?

Has the plowing and fitting of your soil been done so poorly that weed spots will rise up to plague you all season? What's the use of putting all your labor and money into a crop if it fails, or nearly so, because of lack of lime and enough of the right kind of fertilizer?

What's the use of taking a chance of a poor stand and a poor crop because you settled for poor seed just because it was a little cheaper?

Incidentally, while sticking to the tried-and-true varieties, why not have a little fun trying out some new varieties on a small scale?

Decide right now, and reap the reward at harvest time.

EASTMAN'S CHESTNUT

There are a good many jokes about the prayers folks make when they get caught in an emergency. You have probably heard the old gag about the man who got in a fight with a bear and suddenly felt the need of calling for help.

"Oh Lord," he prayed, "help me if you can, but if you can't, for heaven's sake don't help the bear!"

Then there was the little boy who was playing on the roof and began to slip to the edge, praying as he slid: "Oh Lord, save me! Save me! Save . . . Never mind, Lord, I'm caught on a nail!"

But the best one is about the Irish soldier who was walking through the streets of a city when a robber ordered: "Hands up!"

"Faith now, Lord, Ye've got to help me," implored the soldier, raising his hands high above his head.

Just then a sandbag fell from a balloon and knocked the stickup man cold.

"Amen!" said Pat. "Shure now, 'tis quick sarvis Ye give me."



ED EASTMAN'S PAGE



SERVICE BUREAU

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mr. Melvin Van Haneghan, Palmyra	\$33.60
(refund of premium)	
Mrs. Francis Bush, Croghan	25.00
(refund on down payment)	
Mr. Nelson Widrick, Croghan	1,739.60
(payment for syrup)	
Mrs. Lyda Hunt, Cazenovia	45.00
(payment received)	
Mr. Douglas Cutler, Potsdam	4.95
(refund on order)	
Mr. Wm. B. Freeman, Wolcott	7.78
(refund of overpayment)	
Mrs. Edward J. Croteau, Saranac Lake	3.00
(refund on order)	
Mrs. Alfonso Weisenberger, Canandaigua	1.98
(refund on glasses)	
Mrs. Joseph B. Thompson, Chester	14.67
(refund on table)	
PENNSYLVANIA	
Mr. Robert Frantz, Gelatt	8.95
(refund on order)	
Mrs. Martin T. Petroski, Gelatt	25.00
(insurance settlement)	
Mrs. Effie M. Townsend, Tionesta	6.98
(refund on moccasins)	
MAINE	
Mrs. Burton Anderson, Hollis Center	78.54
(refund of premium)	
CONNECTICUT	
Mrs. W. S. Queen, Southbury	7.45
(refund on jewelry)	

\$25.00 REWARD

In January our representative, Gerry Stevens, wrote us that arson had been committed against a subscriber in his area, Keith Hatfield of Scipio Center, N. Y., who had just purchased a farm last fall.

A few weeks previously, on a Sunday afternoon, a mentally-retarded boy whom Mr. Hatfield employed had set a fire in the house. Fortunately, it was discovered soon enough so that damage was limited mostly to the kitchen.

The following Sunday Mr. Hatfield's barn burned to the ground, taking with it much machinery and some cattle. Mr. Hatfield was suspicious and asked the deputy sheriff handling the case to question the boy. The boy, who confessed to setting both fires, was held in Cayuga County jail for thirty days, and recently the Grand Jury handed down a sealed indictment.

Our \$25.00 reward is offered to the person who gives information leading to the arrest, conviction and imprisonment for at least 30 days of anyone who sets fire to farm buildings belonging to a subscriber, and we were happy to send our check to Mr. Hatfield.

Under certain conditions, we also offer rewards for fraud and theft. The crime must be committed against a subscriber who has a Protective Service sign prominently displayed, and claim must be made promptly within 30 days after conviction. No reward is paid if the sentence is suspended or the culprit is paroled, nor is it paid in the case of theft from commercial concerns.

Inquiries and letters to the Service Bureau should be addressed to Service Bureau, American Agriculturist and the Rural New Yorker, Box 370, Ithaca, New York.

Lands in hospital for 26 days when farming accident causes LOSS OF EYE

"Plugging in the electric hay elevator I was hit by a bale of hay which knocked my head against the elevator and my right eye hit a metal cleat on the moving chain of the elevator."



Three policies paid \$1,155.00 medical expenses and \$1,325.00 for loss of eye. Agent Frank Muller of Bath, N.Y. delivers benefits of \$2,605.00 to George Potter, Jasper, N.Y. Mr. Potter says, "Thank you for the prompt payment of my claim. Insurance comes in real handy for such emergencies. My wife and I have had policies with North American for a number of years and recommend it."

OTHER BENEFITS PAID

LaRue Button, Andover, N.Y.	\$ 227.00	Ruth Postle, Medina, N.Y.	\$1166.06
Hit by flying handle—broke jaw		Slipped on rug—broke hip	
Walter Hornberger, Whitney Point, N.Y.	1364.64	Kenneth Hotaling, Central Square, N.Y.	447.21
Caught in power-take-off—inj. thigh		Fell on ice—broke ankle	
Mary Wilkins, Cattaraugus, N.Y.	121.43	Everett Dafoe, Potsdam, N.Y.	127.86
Knocked down by cow—inj. rib and back		Jack slipped under car—injured back	
John Simmons, Sterling, N.Y.	129.28	Robert Hasbrouck, Duaneburg, N.Y.	491.46
Caught in skill saw—cut tendons		Slipped and fell—injured leg	
Frank R. Barney, Sherman, N.Y.	312.30	Wayne Moyster, Hyndsville, N.Y.	1335.00
Caught in V-belt pulley—inj. hand		Fell off bicycle—broke leg	
Constance Hedlund, Ashville, N.Y.	1230.35	Kenneth C. Hunt, Rathbone, N.Y.	810.50
Auto acc.—broke ankle, cut tendon		Tractor rolled over—broke ankle	
John Kaysa, Sr., Horseheads, N.Y.	516.46	Derwood Burns, Bath, N.Y.	169.05
Slipped and fell on rail—broke rib		Hit by tree limb—inj. neck	
Harry William Beecher, Greene, N.Y.	128.55	Martha Cain, Jamesport, N.Y.	831.63
Kicked by horse—inj. chest		Caught in potato combine—injured hand	
Nelson J. Post, Sherburne, N.Y.	871.15	Charles Trinowski, Jr., Jamesport, N.Y.	264.10
Auto accident—multiple injuries		Auto accident—inj. face, arm, leg	
Robert W. West, W. Chazy, N.Y.	141.43	Laurence Dingman, Newark Valley, N.Y.	335.00
Gas explosion—burns		Loading cows on truck—broke ankle	
Abraham Siegel, Cortland, N.Y.	187.50	Charles A. Glezen, Sr., Richford, N.Y.	108.56
Slipped—dislocated shoulder		Knocked down by cow—inj. shoulder	
Sheldon Shaw, Delhi, N.Y.	1190.18	Roderic Neno, Groton, N.Y.	132.19
Thrown off tractor—injured knee		Auto acc.—multiple cuts, bruises	
Angelo V. Dibiasi, Lawton, N.Y.	271.42	Levinus Blik, Williamson, N.Y.	327.95
Forced by cow into separator—inj. back		Caught in belt drive—injured hand	
Walter King, Burke, N.Y.	1111.43	Irene Shoemaker, Red Creek, N.Y.	670.65
Knocked off bulldozer—broke leg & foot		Pedestrian acc.—broke leg, multiple cuts	
Frank Grice, Batavia, N.Y.	186.14	Ralph N. Heineman, Java Center, N.Y.	151.70
Tipped over with ladder—broke leg		Knocked down by cow—inj. back	
Jennie M. Lambert, Frankfort, N.Y.	514.09	Oscar J. Mortensen, Penn Yan, N.Y.	1319.50
Fell on sidewalk—broke foot and knee		Auto acc.—broke and disloc. hip	
Mary Sweredoski, Sacketts Harbor, N.Y.	865.00	James Cady, Westfield, Penna.	120.00
Auto accident—whip lash		Kicked by cow—injured wrist	
Claude Bardo, Turin, N.Y.	475.74	Ford Preston, Elkland, Penna.	250.00
Attacked by bull—broke ribs		Pinned between picker & tractor—broke leg	
Kevin Peebles, Oneida, N.Y.	1051.24	Martin Hup, Lakewood, N.J.	436.12
Fell from ladder—broke elbow		Oil drum exploded—severe burns	
Lyla Nicosia, Fairport, N.Y.	756.23	Leon Sipple, Johnsonburg, N.J.	200.00
Fell—broke ankle		Caught under steel plate—broke leg	
William A. Carpenter, Fonda, N.Y.	351.40	William Palmer, Jr., Amherst, Mass.	635.71
Tractor hit stone and spun—injured thumb		Fell from ladder—broke leg	
Mildred Langendorfer, Barker, N.Y.	268.92	Mary Wescott, Orland, Maine	161.43
Greenhouse bench collapsed—inj. feet		Fell—injured back	
Francis Dowling, Boonville, N.Y.	151.42	Clayton Damon, State Line, N.H.	320.00
Slipped and fell on ice—broke hand		Caught in conveyor—injured hand	
Raymond Beak, LaFayette, N.Y.	442.86	Michael J. Donahue, Manchester, N.H.	136.43
Fell off truck—broke wrist		Auto accident—cut leg	
Elsie H. Snider, Rushville, N.Y.	278.35	William H. Denton, Wolcott, Vt.	602.58
Fell on ice—cut head		Struck by cow—broke elbow	
M. Arthur Lain, Westtown, N.Y.	125.00	David Jerry, Vergennes, Vt.	110.00
Pinned under wagon—injured back		Fell over calf—broke wrist	

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(In New York State)

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GENERAL OFFICES: CHICAGO, ILLINOIS

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protein rich

Kylage
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Silage made with Kylage maintains the milk producing and beef building food values the same as when fresh fodder is fed. Kylage works well with any forage crop. It drives out trapped air, stops spoilage and foul smelling odors and gases. Stimulates lagging appetites. Nothing works better. Nothing is easier to use. A few cents a ton is all it costs.

Every year, more and more, dairy and stockmen, are staying with Kylage. How about you? For more information return coupon.

Kylage
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AA466

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Here comes the new Hayliner 275 !

Built extra-strong for extra-tough baling!



Heavy reinforced steel bale chamber!



Hardened wear surfaces in knotter!



Rugged roller chain on pickup drive!

THE 14" x 18" HAYLINER® 275 Baler is a real workhorse! Even in hard-to-handle crops like sorghum, sudan hybrids and cane, you can always be sure of good, square bales. It's tailor-made for custom operators and big-acreage hay growers.

From hitch to bale chute, the "275" is beefed up with long-life features: bale chamber of heavy, reinforced steel...roller-chain-driven pickup with built-in slip clutch...full-length tongue connected directly to axle...exceptionally reliable heavy-duty knotter with hardened wear surfaces...and many, many more!

And here's something new: *standard equipment* includes the

remarkable *Super-Sweep* pickup with 120 teeth—72 more than conventional pickups. Short hay that slipped by before now goes into the bale!

Best of all, every bale is a "New Holland bale"—solid, square, tightly tied. Even when you're pushing the "275" to its limit, you won't have to worry about bow-shaped bales or missed ties!

Your New Holland dealer is waiting to give you the full story. Stop in, and let him show you the Hayliner 275!

New Holland Machine Company Division of Sperry Rand Corp.

NH NEW HOLLAND
"First in Grassland Farming"



MAY 1966



American Agriculturist
and the

RURAL NEW YORKER

FOR THE NORTHEAST FARMER



**Grow alfalfa like this
with Alfa-tox for reliable weevil control.
Absolutely no residue in milk.**

Here's the nearest thing yet to a "perfect" alfalfa insecticide. Spray Alfa-tox*... which contains both Diazinon® and Methoxychlor . . . for control of alfalfa weevil. Control you can depend on to protect alfalfa against this destructive insect. And just about every other insect known to attack alfalfa.

Spray Alfa-tox before your first cutting. Check alfalfa bud tips frequently and treat by the time 30-50 per cent of the bud tips show signs of larvae feeding. This provides effective control of larvae which have already hatched, as well as larvae which hatch following application.

Under normal conditions, control of weevil with Alfa-tox lasts for two to three weeks, which is usually ample time to assure protection of your alfalfa until harvest of the first cutting. If a repeat applica-

tion is necessary, it may be made up to seven days before cutting alfalfa for hay.



Spray with Alfa-tox for reliable control of alfalfa weevil and other insects without danger of insecticide residue in milk.

You can be sure of no danger of insecticide residue in milk with Alfa-tox. All you have to do is wait seven days after spraying before you graze livestock or cut treated alfalfa for green chop or hay.

Plan now to get reliable control of alfalfa weevils with Alfa-tox and have no problem of residue in milk. Ask your supplier for Alfa-tox . . . an insecticide you surely can depend on.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

*Alfa-tox is a trademark of Geigy Chemical Corporation.

Geigy
CREATORS OF CHEMICALS FOR MODERN AGRICULTURE
Alfa-tox

Exclusive!

Only a Cornell Blue Ribbon Barn Cleaner features the drive chain with short Round-Oval Link design. What does it mean to barn cleaner efficiency and economy?

Round-Oval Links shed manure and urine better, prevent corrosion. Each link is formed, not riveted. No crevices . . . nothing to work loose. Special short length prevents jamming, and breakage, minimizes link wear.

Only a Cornell adds all these "blue ribbon" advantages: non-slip, double-tooth drive sprocket / two-inch drive paddle to prevent manure pile-up or roll-back / exclusive reverse corner idlers or slide for greater adaptability optional. Install a Cornell barn cleaner . . . or convert your present installation. Write for complete data today.

Also distributors of Vandale Silo Unloaders.



CORNELL

MANUFACTURING COMPANY

Dept. C Laceyville, Pennsylvania

American Agriculturist, May, 1966



American Agriculturist
and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 163, No. 5

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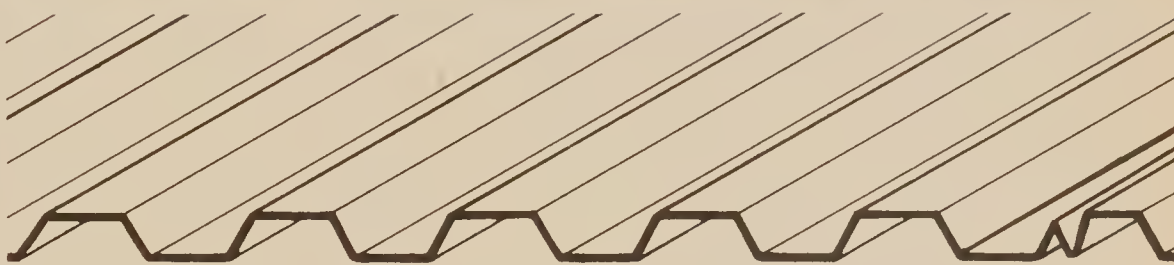
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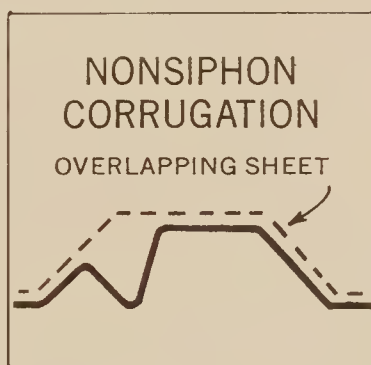
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King-size roofing sheets!



RIGID-RIB nonsiphon design prevents roof leakage at laps.

**New galvanized RIGID-RIB*—
extra long, extra wide
to cover more roof
faster with fewer laps!**

Protect vital crops, grain, and livestock the positive way . . . with Republic Steel's new extra-strong RIGID-RIB . . . without exception, the newest thing in roofing, specially designed for the tough job that farm building roofs must do.

New RIGID-RIB is available in up to 32-foot lengths. These longer lengths eliminate most end laps and reduce waste. The 30-inch covering width reduces side laps by 20%. There's no leakage with RIGID-RIB because of its unique nonsiphon design. And the distinctive configuration of durable RIGID-RIB sheets gives roofing and siding a crisp, clean look — pleasing to the eye!

Doesn't that sound like the kind of peace-of-mind roofing you should have? We'll be glad to send you more detailed printed information — or your dealer will be happy to show you the details we've described.

*A Trademark of Republic Steel Corporation

OTHER REPUBLIC PRODUCTS FOR PROFITABLE FARMING:

RIGID-FLOOR® FOR CONFINING BREEDING OF HOGS AND CATTLE
NAILS AND STAPLES
BOLTS AND NUTS
PRECISION WOUND® BALER WIRE
BARBED WIRE

REPUBLIC STEEL
CORPORATION



Dept. AE-1940-A, 1441 Republic Building
Cleveland, Ohio 44101

Please rush kit of information about new Rigid-Rib Roofing!

Name _____ Title _____
Company _____
Address _____
City _____ State _____ Zip _____

WHAT MAKES PEOPLE BUY?

ANALYSIS IN DEPTH

"Marketing" means different things to different people, but it's a term often on the agenda of farm meetings these days. As the Northeast urbanizes, farmers are more concerned about moving closer to the consumer and thereby picking up some of the dollars in the marketing margin. Here's information in depth about some things marketers need to know about the people who buy farm products . . . be they farmers with roadside stands or supermarket managers.

by Henry V. Courtenay*

MORE THAN 90 percent of all consumer food purchasing is done by women. This is the age of the consumer, and the age of consumer research to help us better understand what manner of women are these who constitute the consumer market.

Women are different from men; they are different in ways that behoove your consideration in terms of your roadside market operation. For example, women's arm-bones are at a slight angle . . . you might say they are knock-elbowed . . . therefore they have difficulty turning the steering wheel of an auto for very sharp turns.

Women don't like to make sharp turns and they have difficulty negotiating them. So, a good entrance to your market, and the provision of adequate parking space, are important from both a functional and a psychological standpoint at roadside markets.

Women hear better than men (particularly on the party line) . . . they are more sensitive to sound, hence soft sweet music is conducive to more sales whether it's in a store or at a roadside market.

Women have a highly developed sense of smell . . . they often judge products by sniffing them like a bloodhound. That's why new detergents and cleaning products are perfumed. That's why baby oil must have a "baby smell." And your roadside market must smell like a fresh fruit and vegetable garden to motivate consumers to buy. If it smells of rotten fruit and garbage cans, you lose.

Women have keener taste than men and they like to taste things . . . hence the sales motivation value of food demonstrations in stores, and the displaying of various items to taste and try at your roadside market.

See Better

Women see better than men . . . research shows they have fewer eye defects; color blindness occurs 8 times as often in men as it does in women. Women notice small details . . . untidiness, dusty items, rotted produce, fruit flies, dirty or broken windows, shabby buildings, peeling paint, saggy doors, trash-strewn floors, dishevelled op-

erators, shoddy background or landscape, and the pot holes or puddles in your market driveway. Of course these things chase consumers away from your market and the opposites of these things are positive sales motivators.

Since women have sharp eyesight they are very conscious of colors and shades of color; that's why lipstick manufacturers supply their product in 101 different shades. Realization of this color factor is the reason why we now see pastel colors in soaps, tissues, appliances, shortenings and detergents.

The fact that women are very conscious of color has implications for your roadside market operation. Landscape with colorful flowers, shrubs, and trees. Make displays to take advantage of the contrasting array of colors in your products.

Paint-up in bright pastel shades; use gay, colorful, crisp, fresh-looking packages and wrapping materials. Dress up your market with colored bunting, banners

and colored lights. However, don't overdo it . . . exercise good taste.

Women are more emotional and superstitious than men. They are more apt to live in two worlds . . . one real and one of fantasy. They have a stronger urge toward satisfying their many psychological needs, which takes me out of the realm of tangible factors that influence women's buying and into the area of desires, wants, and motives.

Inner Needs

Today, a product is sold to cater to psychological needs as well as physical needs. For example, aspirin isn't really sold as medicine; it's now a sort of hormone to sweeten your disposition and keep you from having to say, "Mother! I'd rather do it myself!" Coke isn't just a drink; it's the phenomenon that makes things go better . . . Pepsi makes you think young, be sociable, and belong to the modern generation. Detergents put giants in washing machines and provide you with a knight in

shining armor who is stronger than dirt.

A household cleaner creates a white tornado. Expensive soap isn't sold to wash a woman's dirty neck; it's to give her allure and make her squeaky clean all over. Sometimes on the toothpaste commercials you wonder if you would rather have 46 percent fewer cavities with fluoride toothpaste, or keep your cavities and have 46 percent fewer commercials!

The point I want to make is that in this new era of the consumer there is a lot more to a product or service than its physical characteristics. Any product and service, including your roadside market, is a whole bundle of attributes . . . physical and psychological.

Four Motives

Here are four important human motivations, and how they apply to merchandizing:

(1) A desire for a feeling of security with respect to physical, financial, and psychological well-being.

For instance, the visual impact of illustrations on packages can reinforce a purchaser's sense of security . . . or create uneasiness, depending on how well they fit the consumer's idea of the best in health, nutrition, and production facilities. We still see too many egg cartons with a pictorial design showing chickens scratching in barnyards and old roosters crowing on rail fences. These packages are not in harmony with consumers' thoughts on acceptable eggs . . . characterized by pretty chickens and by clean farms, or with a cooked meal.

(2) A desire for recognition (emulation, devotion, superiority, ornamentation).

A recent ad for a home perma-
(Continued on page 18)

SOME POINT-OF-SALE POINTERS

Nearly two out of three of the consumer's final purchasing decisions are made right in the store . . . any store . . . at the point of sale. Here are some key points when considering point of sale and display as a tool to motivate consumers:

PRICES

Should be clearly displayed. In some cases include names of items.

COLORED POSTERS

These are available from your fruit and vegetable organizations.

PAPER TOWELS

Towels for the use of customers who bag their own items is a thoughtful touch.

LARGE DISPLAYS

Displays attract attention. Dummy the core of the display to avoid overstocking, and tilt it for maximum display effect.

FRESHNESS

Your products should have that "fresh-picked, high-quality look." Cull and restock after each rush.

REFRIGERATE

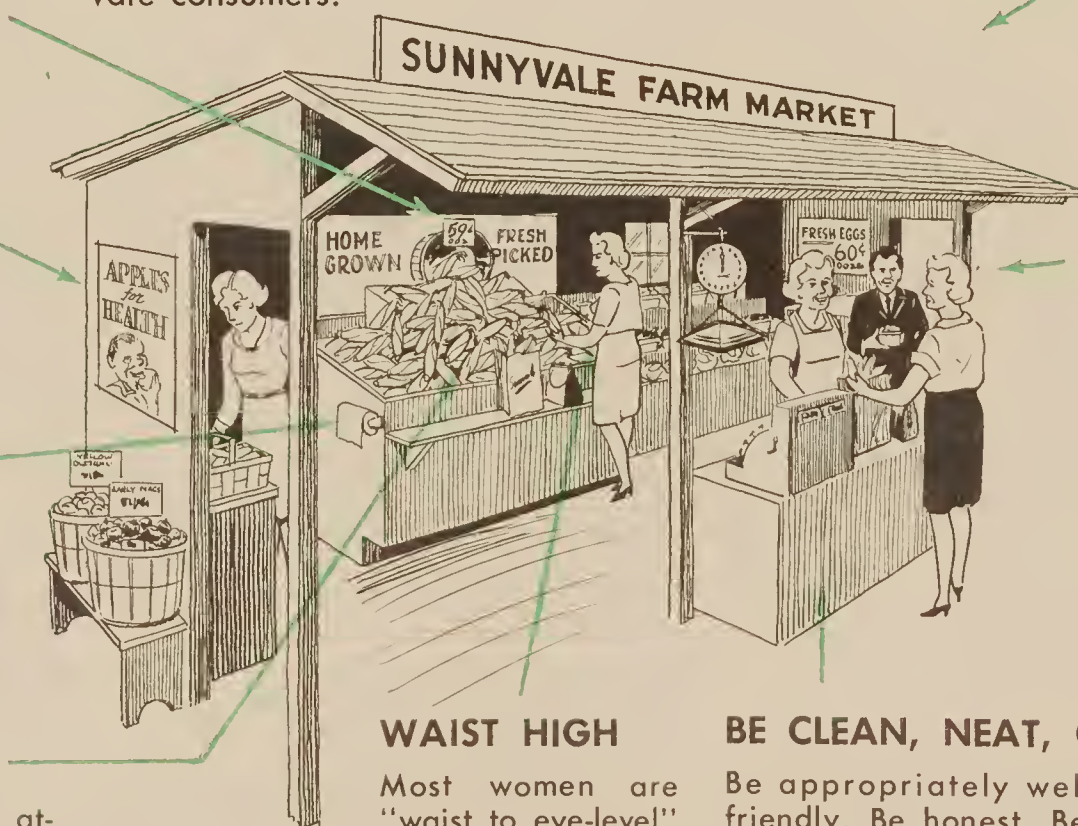
If possible, display highly-perishable items on ice or refrigerated shelves. This prevents unnecessary spoilage, projects a quality image.

WAIST HIGH

Most women are "waist to eye-level" shoppers. Display the items you want to "push" at this level.

BE CLEAN, NEAT, COURTEOUS

Be appropriately well groomed. Be friendly. Be honest. Be sincere. Don't hound your customers like a private eye . . . simply be conspicuously available should they need help. Be informed about your products, their qualities, varieties, uses, and storage problems.



* Department of Agricultural Economics, Purdue University

BLOAT GUARD COULD HAVE SAVED HER

!



Scientific Research has found the answer to legume bloat

New BLOAT GUARD™ brand of poloxalene, a top dressing for feed, is now available to protect your herd from legume bloat.

New BLOAT GUARD

- acts rapidly
- is palatable
- has no adverse effects on health, reproduction, rumen intake, or quality and quantity of milk
- is not eliminated in milk
- is not found in body tissues after being administered
- is equally effective each day of the bloat season
- is economical

Developed by outstanding research scientists, BLOAT GUARD brings you more than

the immediate advantage of stopping legume bloat. It brings you long range advantages that can save money on labor and feed . . . and increase production.

BLOAT GUARD permits more efficient use of present pasture by making lush pasture and green chop bloat-free. BLOAT GUARD cuts the cost of barn management by allowing herds out of the barn and onto pasture earlier in the season. And BLOAT GUARD allows the planting and feeding of high-production pasture like alfalfa and Ladino clover.

Protect your herd from legume bloat . . . with BLOAT GUARD, available now at your local feed and farm supply outlets.

BLOAT GUARD* is the trademark of Smith Kline & French Laboratories, Philadelphia, Pa. *Patent Pending.



Twin cows, fed on identical succulent alfalfa. Cow on left, with recommended dosage of BLOAT GUARD, did not bloat. Other cow, without BLOAT GUARD, did.

BLOAT GUARD

NOW AVAILABLE WHEREVER STALEY SWEETLIX BLOCKS ARE SOLD.

EDITORIALS

by GORDON CONKLIN



BARGAINING MUSCLE

Campbell Soup Company president W. B. Murphy wired Charles Shuman of Farm Bureau back in March that, "We do not consider it desirable for anyone to stand between the growers and us." This comment supposedly justified Campbell's refusal at that time to meet at the bargaining table with representatives of the American Agricultural Marketing Association to discuss contract prices for tomatoes.

This is just another example of the age-old truth that human beings constantly attempt to organize power structures for their own benefit . . . and simultaneously resist the organizing efforts of groups with whom they must bargain. Milk dealers, fruit and vegetable processors, supermarket buyers . . . many of them over the years have resisted farmer solidarity at the bargaining table because of the price-cutting opportunities to be derived from producer fragmentation.

Farmers feel caught between huge corporate aggregations of economic power on one side, and labor unions wielding enormous political power on the other. Both sides of this gigantic nutcracker influence farm production costs (almost always upward) in a rather inflexible way. Farm people find themselves wondering how they can achieve some degree of equality in the economic wrestling arena.

Corporation representatives, smarting under the whip of labor unions, naturally tend to fight grower organizations. But they should remember that farmers' bargaining groups remain voluntary instead of compulsory, and that farmers are primarily businessmen selling management and the fruits of capital, rather than laborers.

In the long run, it's better for companies such as Campbell to negotiate in good faith with farmer groups as they are . . . rather than force by antagonism the development of far more militant and compulsive organizations. And farmers cut their own throats for tomorrow if they break ranks for an extra few bucks today.

THE NEW FRONTIER

My son is fascinated with rockets and all the rest of the things involved in the space program. He can go through a count-down with precision, and patiently explains such things as "thrust" and "yaw" to his horse-and-buggy father.

As I watch his almost instinctive response to a challenge he doesn't yet understand, I wonder about the prophets of gloom and doom that have consigned the human race to the ash heap. Looking back with realistic eye across the sweep of human history, we see that there has always been the negative in life . . . such things as injustice, cowardice, cruelty, hatred, and war. But in the fabric of history there have also been bright threads interwoven amidst the black . . . threads of unflinching courage, loyalty to high ideals, compassion, and the capacity to love.

And, akin to the ceaseless tumult of the boiling surf, there surges within the human heart a restless urge to move on, to see what lies over the next hill, to find out what makes things go. Our nation was flung across a great continent by men who thirsted for these things, along with their hunger for wealth.

They were neither angels nor supermen, but common mortals doing uncommon things in response to a hope that the best was yet to be.

You and I stand upon the threshold of a new frontier having awesome dimensions. Our sons may see the establishment of colonies upon other worlds. Some day our planet may be just another state in a cosmic federation.

The conservative conservationist warns that we will soon use up all our natural resources. The fundamentalist theologian says (a bit gleefully, it seems) that practically all of the rest of us are going to hell. The bleeding heart whines about the cruel world and claims that work . . . er, therapeutic activity . . . should not be required for "culturally deprived" people to "fulfill felt needs." The extreme rightist argues that everyone should be jailed but him (he's the only morally-upright man left, in his view). The Communist sharpens an axe to cut off the capitalistic hands that feed him.

Amidst all the argument and confusion there sounds a shout that echoes the cry from Conestoga wagon and clipper ship. The astronaut sounds it now . . . a word that will outlive the babble . . . "GO!"

INTERESTED?

From time to time, we receive letters from young men who would like to enter into partnership with an older farmer who is approaching retirement . . . with the idea of perhaps being able to buy the farm operation eventually. Similarly, we receive letters from older farmers who would like to find a young man interested in such an arrangement.

We are glad to serve as a go-between in such situations. However, we make no attempt to investigate the character or ambition of either party . . . we merely provide the names of possibilities. If you're interested, send us your name and address and we'll add it to our list.

A DRUG ON THE MARKET

Some time ago it was my privilege to attend the dedication of a new addition to the agricultural research laboratories of Hess & Clark near Ashland, Ohio. During the tour of the facilities, I became a bit more acquainted with some of the complexities of modern agricultural research. It's a fantastically complicated and expensive process to develop a new drug of benefit to agriculture.

As just one example, we saw a large feeding barn where some fine-looking Herefords were being fed various experimental drugs at different levels to determine their effectiveness against infections. Except for the "control" animals . . . those being fed no medication . . . every single animal in the barn had to be incinerated at the end of the experiment. This is because Food and Drug Administration regulations require that no animals be sold for meat that carry any unauthorized drug in their body tissues . . . and no drug can be authorized until long after these and other tests are complete!

Imagine how expensive is the process of testing large numbers of new drugs and then having to dispose of most of the animals involved in this fashion! Remember also that, for every drug that finally makes it to the

marketplace, literally dozens never do . . . yet the failures often cost as much to check out as the few that make the grade.

In the laboratories, we saw a bewildering array of electronic equipment. Analytical chemists can now detect one part per trillion; newly developed blood cell counters can do in seconds what it took a person many minutes to do previously. This equipment is enormously expensive, and it requires highly-trained people who have spent years of effort in accumulating the skills which now bring a high price in the labor market. Without these highly-trained people, and their dedication to their tasks, the complicated and impressive-looking equipment would be completely useless.

After years of work in developing a drug that has proved itself effective for animal health . . . perhaps at a cost of several million dollars . . . the problems of getting it to the farmer in a usable form have only begun. For instance, tests must be run on container compatibility so that the drug package will not contaminate nor deteriorate because of contact with its contents. The product itself must be tested for stability over long periods of time at various temperatures so that the label can include instructions concerning storable life and conditions under which it must be stored.

Then there is the whole problem of setting up an efficient production line, sometimes under absolutely sterile conditions where workers must wear special clothing that makes them look like astronauts. Finally, the finished product is ready for distribution.

This process is, as I have said, an enormously expensive one and there are dozens of strike-outs for every base hit. When you purchase a drug for your livestock or poultry, the package that you buy contains not only a material designed to combat disease . . . it also contains thousands of hours of effort, hundreds of thousands of research dollars, and the marvelous fruit of accumulated research.

WE REMEMBER

Some of us will join official observances honoring our military dead on Memorial Day. Others will make an individual pilgrimage, tinged with sadness, to the last resting place of someone who once shared our lives . . . and now is gone. Our memories will range from bitterness about the tragedy of war to a gratitude that we were at least privileged to have the fallen one within the warmth of our family circle for a few short years.

Many of those who now sleep forever beneath the sod did not understand the great issues that brought them to the crucible of battle . . . even as you and I are baffled by the riptides of human passion and the complexity of social conflict. They, like we, must often have felt immeasurably small as individuals in the midst of the maelstrom of national and international tension. But we honor them because, in spite of their human limitations they paid the ultimate price on behalf of a nation and way of doing things in which they believed.

The cynics and the apostles of disorder will scorn their sacrifice, claiming that to remain alive justifies all compromise with challenge. Then there will be those who legitimately point to past and present imperfections in the American way of life for which these gallant dead poured out the crimson substance of their lives.

But the annals of respect have never demanded perfection from those whose memories are to be honored. Amidst the continuing turbulence of humanity, in a time of national crisis, we would do well to honor those whose message of courage lingers on after the mournful bugle notes of "Taps" have died away.

American Agriculturist, May, 1966

It mows cleanly through thick crops!



Even today's hard-to-handle hybrids are easy going for Haybine mower-crusher!

It conditions and windrows!



IF YOU'VE BEEN HOLDING OUT against the sudan-sorghum crops because no machine could handle these heavy hybrids—start changing your plans! The New Holland Haybine® mower-crusher takes 'em right in stride!

Here's a 3-in-1 machine that can move along at field speeds up to 8 m.p.h. And because the reel is keeping the cutterbar clear, you're able to breeze through tall, thick crops. Adjust the reel downward and you'll lift up tangled and knocked-down crops that would otherwise be left on the ground.

Then before this mowed crop touches the ground, it's swept

back into the full-width crushing rolls. Less chance for dirt or stones to get into windrow or swath! Whether you're making bales or silage, this helps keep crop quality high.

The Haybine mower-crusher even has the rugged strength to slice through tall cane and sorghum and lay it into a fast-drying swath.

So don't ever hesitate to plant a high-tonnage crop just because you think it's going to be a problem to harvest. Remember, this is 1966 and the Haybine is here! At your New Holland dealer's, that is. New Holland Machine Co. Division of Sperry Rand Corp.

NH NEW HOLLAND

"First in Grassland Farming"



**Even when you go at top speed
every bale is good and square!**



NEW HOLLAND knows that *capacity* means more than "tons per hour"—although this Hayliner® 268 baler is second to none in its size class in this respect!

The bales you make must be solid, square, tightly tied—even when you push the baler to its limit. Here's where the others fall down and New Holland really shines!

Your "268" will go-go-go all season long. Its plunger is *completely* roller mounted which saves power and frequent knife adjustments! (New Holland Hayliners are the only 14" x 18" balers that have this feature!) Wide 56" pickup with 5½" flare makes it easy to stay on the

windrow. Knotter is exceptionally reliable. Remarkable *Super-Sweep* pickup has 72 extra teeth—gets the short hay you've been missing! (Standard on wire-tie models, optional on twine-tie.)

Best of all, the bales you're making are *premium* quality... because the famous Flow-Action® feeding system is handling the crop gently, saving more of the leaves.

If this sounds like a lot of baler, you're right. And just wait till you see the surprisingly low price tag! Your local New Holland dealer is waiting to show you right now.

New Holland Machine Company Division of Sperry Rand Corp.

NH NEW HOLLAND
"First in Grassland Farming"

STARTED EARLY

I started keeping hens when I was in school. After college, in 1953, I worked with Dad, but he let me keep 1800 layers in a barn.

Then six years ago I bought the farm and built the flock to 5000 layers in cages. The present house with cages was built about a year ago to hold 11,000.

Egg sales at semi-retail help a lot. We dispose of around 400 dozen here (take 'em and pay) during the winter, and up to 600 dozen in the summer. We also deliver about 110 cases a week to stores and restaurants nearby, leaving about 30 cases a week which we contract to Agway.

Replacements are raised here. We buy 3,500 baby chicks three times a year. When 12 to 14 weeks old they are put in cages in the old barn, 12 to a cage, where they stay until they are 22 to 23 weeks old.

Figures show I can raise a pullet for \$1.30, while to buy her would cost \$1.70 to \$1.80. We sell the old hens at 14 months for an average of 30 to 35 cents each, creating an overhead that must be met before a pullet gives us a profit.

We grow 30 acres of corn, 25 to 30 acres of oats, and 50 acres of wheat. If I can get \$50 a ton for grain I do so, and buy a bulk ration for the layers. I could save a little cash by having my own

ration mixed, but a few less eggs would more than make the difference.

I care for the 11,000 hens. A schoolboy works an hour-and-a-half a day to gather eggs, and helps me full time in summer. Mrs. Houghton helps, and two women work forenoons to wash and grade eggs.

It costs us about a cent a dozen to deliver eggs, but last year we averaged almost 39 cents a dozen, while the wholesale market would have brought around 33 cents, giving us a 6 cent margin above wholesale. If we had to sell wholesale, we would have to double the flock to make a good living.

We keep a good set of records



Charles Houghton beside the newer of his poultry houses.

so we can know our costs. — Charles Houghton, Ithaca, N.Y.

Personal Farm Experience

The items on this page all come from the firing line of farm production.

QUIT BLUEGRASS

For forty-seven years I grew bluegrass. As was the case on most farms fifty years ago . . . and still the case on many farms . . . it was on the part of the farm rough with some brush, stumps, stones and wet spots. Gradually over the years I got it cleaned up enough to be able to lime, fertilize, and clip.

In those early days it made some production in the spring and early summer. The rest of the time until I put the cattle in for the winter it was mostly an exercising lot. Production for the summer was about two tons of green stuff per acre.

Then we began liming and fertilizing, and production jumped to around twelve tons per acre; by test the nutrients increased about fifty percent over the unfertilized. They were having pasture contests in those times and ours was first in the county several times.

Several years ago I quit the dairy business and switched to steers. At the early stage the ground was often soft from the spring rains, so steers did considerable damage to the field.

Then I got the idea of making it into silage, which was fine and of a most succulent nature. If we fertilized early the grass was so rank a lot of it went down, which of course hurt the quality. Then I began to fertilize 350 pounds per acre of a 10-10-10 after the first crop was taken off and then turn in steers. By that time there was less moisture both in the grass and the ground, so that the steers did not lose weight like they did early in the season.

Then in 1962 and '63 we had droughts that began in June and lasted all summer. In 1962, I took the steers off early and put the bluegrass into the silo. It was so lacking in moisture that by the time we gathered it up it was so dry it spoiled in the silo.

American Agriculturist, May, 1966

In 1963, I made hay of it . . . about four bales per acre. Yield the rest of the summer was so light I did not either clip or pasture, so you might say two years supply of fertilizer was wasted.

So, in 1964, I decided to plow up my bluegrass field and plant corn. The corn was so good that the five acres I entered in the State contest turned out to be the highest in the county, seventh in the State, and as far as I could learn higher than in any of the surrounding states. Compared to those last two drought years, when bluegrass made only about five tons of green stuff per acre (at \$10 per ton worth \$50), my whole crop of corn averaged 125 bushels of shelled corn per acre.

I was able to fatten out 56 steers, increasing their weight from 450 up to 1,000 pounds on 23 acres of corn and 15 acres of alfalfa . . . and had a surplus of both.

With alfalfa for roughage, I only bought a small amount of protein; deducting all expenses I had over \$7,000 for my own feed and labor. This causes me to have no desire to go back to bluegrass. — Hugh Fergus, Slippery Rock, Pennsylvania

KEEPING DEBT LOW

When in 1953 we decided to own a farm of our own, we found the cash we had lacked a lot of filling the bill. We had farmed, but sold out, and the farm we bought had been neglected and there were no cows or equipment.

So I decided to get a job with a farm equipment company, and only last fall ('65) became a full-time dairyman.

In the meantime, we limed and fertilized the land and kept a flock of 1200 hens. The money from the eggs, which we sold retail, and from some birds we dressed, helped. To use the land and have some

manure to build it up, I bought heifers and sold them just before freshening. The present herd was started with 17 cows from calves raised in 1961.

The barn had room for 24 stanchions, so in 1965 we added 40 feet to allow for 16 more cows. Now we have 80 head, including 32 milkers. I haven't been satisfied with production, but now that I'm here full time I expect to get more milk from the same cows.

One way we kept costs low was buying used equipment. I have never bought a new piece of machinery. It may sound like bragging, but I know how to repair and maintain farm equipment.

At present I am fixing up a shop, 28 x 32 feet, in an old tobacco shed. When it's finished I will be able to do most anything in repairing or remodeling equipment. — Gerald Dann, Addison, N.Y.

ONE WAY TO BUILD

We have been building over the last 5 years a new conventional cow barn with stanchions. In case that sounds strange, let me explain.

It's a conventional barn because when I get ready to milk a cow I want to know where she is. It may take a little more time to milk her, but I'm not entirely convinced of that.

Why have we been at it so long? For two reasons. First, we wanted to do a lot of the work ourselves; second, I wanted to keep our debt low and figured the cows could pay for the new barn as it was being built.

The barn is 126' x 36' to stanchion 50 milkers. The sides are concrete blocks, and the roof is aluminum, with storage for baled hay.

Right now the milking herd is in the old barn, and 25 heifers and dry cows are housed in the new

barn on the side which is completed. When the new barn is finished, the old one will be used for heifers and dry cows.

I am 70 years of age, and if I didn't have my stepson here with me, I wouldn't even be farming. — J. E. Brown, Lawrenceville, Pa.

WHOLE MILK

We grow the replacements for our herd of 50 milkers. I prefer to raise fall calves, and they get more whole milk than many dairymen spare, about 12 pounds a day until they are 6 weeks old. Then they go on dry grain and good hay, and about 4 pounds of corn silage when they are 5 to 6 months old.

I want heifers to weigh 1000 to 1200 pounds when they freshen at around 28 months of age, so I have to keep them growing. Occasionally I raise a calf born in the spring, and she doesn't go on pasture the first year. Heifers that are dropped in the fall go on pasture the following June on 2nd growth meadows.



Max Trowbridge

I take care of the cows except for some summer help, so I have a good set of tools, including a gutter cleaner in the stable. The next move will be to install a bulk bin for feed.

The elevation here is rather high, so we don't raise corn to husk. For silage the ground is fall-plowed, and last year harrowed only once before planting. Chemical weed killer is put on by a custom operator.

I like to hunt a little, and in this area I don't have to go farther than the hill back of the house. — Max Trowbridge, Westfield, Pa.

LOADER SELECTION

by Wes Thomas

CONSIDERING a new loader for your present tractor . . . or possibly a new loader and tractor? All loaders are not the same either in appearance, performance, or price.

Here is a summary of loader information to help you make the best choice. Although there is no one "best" choice for all situations, by careful planning you can match loader features to your own particular needs.

AT FIRST glance the simplest solution seems to be to buy the same make loader as your tractor. Thus it would seem that the loader and tractor would be "matched" by the factory engineers and no problems should result.

In practice, of course, there are several complicating factors. Your tractor manufacturer may provide not one but several different loaders, possibly with additional variations or options within each type. Then, too, you may feel that one or more short-line loaders offer unique and desirable features.

One note of caution here. In some situations forces applied to a tractor by a loader can cause severe damage. Some tractor manufacturers have tested and approved certain independent-make loaders. Their use on the tractor does not invalidate any normal tractor guarantees.

In other instances, the tractor manufacturer may not be responsible if the loader used is any other than his own make. A non-approved loader should not automatically be excluded on this basis only, but it's well to check to see where you stand on this important item.

Hydraulic System

This system provides a convenient method for using a portion of the engine power output to lift a load. A short review of fundamental hydraulic facts will help explain some of the problems often encountered in this area.

A hydraulic pump produces flow; it does not produce pressure.

Resistance to flow is required to create pressure. As resistance increases, the amount of flow produced by a pump decreases because of the increased leakage past the pumping elements. Thus, a pump is rated in terms of flow in gpm (gallons per minute) at a specific pressure in psi (pounds per square inch).

The resistance to flow is of two types:

1. The pressure required to "push" the fluid through the control valve, lines, hoses, and other parts between the pump and the

cylinder. In a well-designed loader, this pressure loss should be relatively small.

2. The pressure required to lift the load. This value increases in direct proportion to the load. That is, if you double the load the pressure produced is doubled.

On the other hand, if you were to install smaller-diameter cylinders on the loader for a given load, pressure would be increased . . . but the speed of lifting would also increase because the total flow would be essentially the same. Conversely, larger-diameter cylinders would reduce the pressure but would also reduce the speed of lifting.

What if the load is so large that it is obviously beyond the capacity of the loader? Pressure would increase until some part of the system would burst if it were not for the relief valve. This safety valve opens when the pressure exceeds a preset value and permits the fluid to return directly to the reservoir. When the excess load is reduced, the pressure drops and the valve closes.

You may be interested in installing a loader on an older tractor on a more-or-less permanent basis. This arrangement provides the convenience of an always-available loader with a relatively-limited investment in the already-depreciated tractor.

However, in many cases the existing built-in hydraulic components cannot be used. Usually the pump provides a relatively-limited flow at low pressure, because it was intended to meet only the demands of the integral hitch. In addition, it may be driven from a point in the power train beyond the clutch. Thus, whenever the clutch is disengaged there is no hydraulic power available.

In this same type of tractor, the control valve can seldom be used. The required connection

facturers have included this requirement in the design of new tractors. Pumps are now engine-driven, or at least the clutch arrangement permits forward motion of the tractor to be stopped without disconnecting the pump. In most cases the pump capacity has also been increased to meet normal loader requirements.

The valve normally included in the tractor hydraulic system to control a cylinder on a trailing implement can often be used for loader control.

Loader cylinders normally require more fluid than the standard 8-inch stroke remote cylinder. When the loader is lowered, this fluid returns to the reservoir in many loaders. Thus, the reservoir must be large enough to hold this extra fluid without overflowing.

Types of Cylinders

Usually the cylinders used to raise the loader are single-acting; that is, hydraulic force raises the load but the loader lowers by gravity. Double-acting cylinders can be arranged to provide hydraulic power for applying down pressure.

However, for general farm use this feature is of limited value, because the downward force available is limited to that which will lift the front end of the tractor. In addition, control of double-acting cylinders require a more complex control valve. This fact would be a consideration if a control valve must be added for loader control.

A second set of cylinders can be used to provide positive dumping of the bucket. These cylinders must be double-acting. They also require a separate control valve.

Quick-Connect Couplers

If the loader is to be removed from and reinstalled on the tractor frequently, quick-connect couplers should be included in the hydraulic lines. In addition to the convenience they provide, they also prevent excess loss of system fluid when coupling and uncoupling.

It's important that dust covers

(Continued on page 12)



points are "buried" within the hitch system, and the capacity of the valve is not great enough for the flow required by the loader.

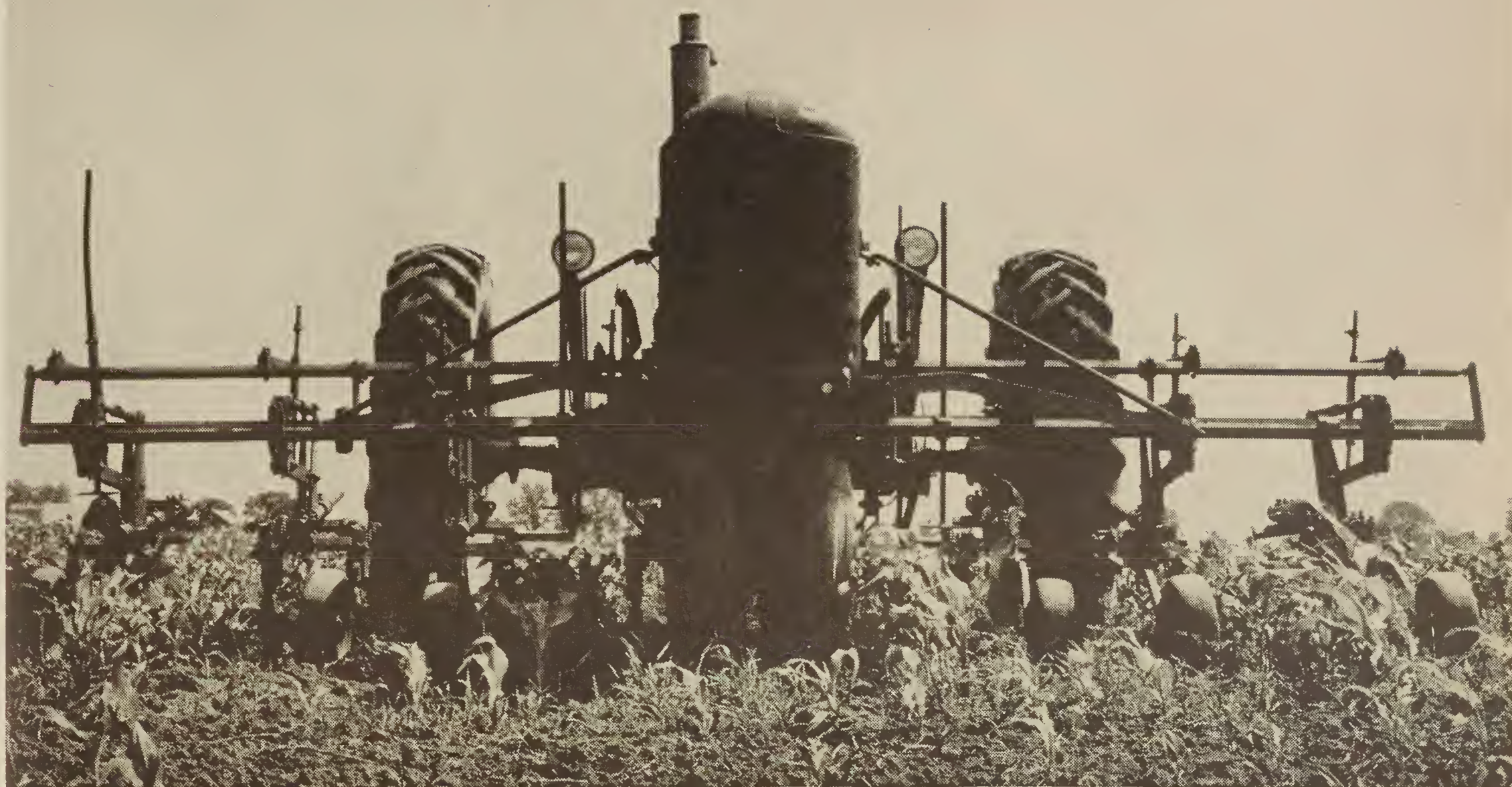
Therefore, on these tractors separate hydraulic components are required for satisfactory loader operation. A crankshaft-driven pump which will develop sufficient flow at the required pressure provides hydraulic power whenever the engine is running. A separate control valve permits control of raising and lowering without excessive pressure drop through the valve.

In effect, the cost of these additional hydraulic components offsets a portion of the modest value of the tractor itself.

As the demand for loader operation has increased, tractor manu-



Fork-lift attachment permits use of loader for handling palletized loads. Linkage mounting of dump cylinders keeps fork lift at same angle as loader is raised or lowered.



No

No need to tie up labor and equipment by cultivating corn when you can control most annual broadleaf weeds and grasses for the entire season with one spray of Atrazine 80W herbicide.

That's right, one spray of Atrazine at corn planting time reduces the need for cultivating. So you'll have that time for other important farm jobs, like getting your first cutting of hay in on time.

You can spray Atrazine at planting or after planting, until weeds are about 1½ inches high. Rainfall moves Atrazine down into the weed root zone, where it is absorbed by the roots of germinating weeds. Keeps most annual broadleaf weeds and grasses under control for the entire season.

If it's dry after you've sprayed, and weeds are getting started, then it's a good idea to go in with a rotary hoe or shallow cultivation. This gets the early weeds and moves Atrazine into the weed root zone,

where it controls later germinating weeds.

A new idea that's catching on fast is spraying Atrazine in combination with liquid nitrogen solutions. One trip over the field weeds and feeds your corn.

This takes somewhat special equipment, however, so it's best to ask your custom spray applicator about it. He's probably equipped to spray the Atrazine-nitrogen combination for you. That way, you won't have to worry about weeds or grasses... and the nitrogen will be there to get your corn off to a fast, healthy start.

So why tie up labor and equipment cultivating corn when one spray of Atrazine is all you need for an entire season without weeds or grasses and without numerous cultivations. Contact your local supplier or custom spray applicator.

Geigy Agricultural Chemicals, Division of Geigy Chemical Corporation, Saw Mill River Road, Ardsley, New York.

Polyram helps me stay competitive by giving me efficient and long-lasting blight control... higher yields... convenient package size. No stops to clean nozzles, no measuring and no waste.

Ernest Chasse, St. John Valley Farms, Madawaska, Maine

Used Niagara Polyram on 100% of our potato acreage for the past two years. Disease control and storage keeping quality have been excellent. Yields have been good, and our No 1's grade out very satisfactory. Happy we changed to a Polyram fungicide program.

Thomas O'Brien, Bryant, Wisconsin, Farms located in Oconto County, Wisc.

Large acreage of potatoes here... we have to use aircraft to apply material for early blight control. Polyram, because of its ease of mixing and spraying, fitted into our weekly schedule well. And our potatoes remained green longer than those in this area treated with other blight controls. We raised a large, good quality crop... were satisfied with Polyram.

Ralph Crosley, Manager, Grandview Farms Division, J. R. Simplot Company, Grandview, Idaho

POLYRAM[®]

fungicide. Prevents early and late blight. Yields more No. 1 potatoes.



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Loader selection

(Continued from page 10)

be included to protect the coupler ends when they are not in use. Otherwise dirt usually enters the system each time the couplers are connected.

Tractor Ballast

This is another big factor in tractor-loader performance. Loader operation produces high weight transfer, but in the opposite direction from the usual drawbar-type loads. This weight removal from the rear tractor wheels, along with the poor-traction conditions typical of many loader operations, can combine to drastically lower operating efficiency.

The obvious but often overlooked solution . . . provide more effective rear wheel weighting.

In addition to the usual choices of liquid ballast and weights for the rear wheels, tractors with an integral implement hitch can be readily equipped with easy-on easy-off ballast. Simply weld-up from angle iron a weight-carrying framework to which the necessary implement hook-up pins can be attached.

On this framework place small cast-iron weights, concrete blocks, or even lead bars. Or if steel punchings are available from local industrial plants, an open-topped box can be added to hold the desired amount of weight.

Total weight can be equal to the lifting capacity of the hitch. To attach the weight, simply hook up the framework to the tractor hitch and lift it clear of the ground. When it is no longer needed, it can be detached easily.

Since the weight is behind the rear wheels, it tends to transfer weight from the front wheels. This weight transfer is in addition to the actual weight itself. The reduction in effective front-wheel weight also helps offset the extra weight of the loader on the front wheels, thus reducing steering effort.

Several items which affect the usefulness of a loader may not be readily apparent.

Performance Specifications — Included here are such things as lifting capacity, break-out capacity, height of lift, and time of lifting and lowering. These items directly affect loader work capacity, and are the one aspect of loaders which can be compared on actual figures.

Extreme height of lift is important only if the loader is to be used for some of the possible auxiliary uses. For manure loading it's only necessary to raise high enough to dump into the spreader.

The other factors are based on rated flow and pressure capacity of the pump. If a lower performance pump is used, the specifications will be reduced.

Access for Servicing — The tractor will still have to be serviced when the loader is installed. Accessibility for checking engine oil level, adding oil, and servicing the air cleaner is important.

Interchangeability — Most short-line manufacturers use a series of mounting kits to fit one basic loader to several makes of

tractors. In addition, some long-line manufacturers provide kits for installation of their loader on competitive tractors.

Thus, if you plan to trade tractors in the future, in many cases you do not automatically have to trade the loader. Instead, you have to purchase only the relatively-inexpensive mounting kit.

Location of Controls — Loader controls should be combined with tractor controls so that the movements required are about equally divided between the two hands. If you must shift gears, operate the throttle, and both loader controls all with the same hand, total productivity will be drastically lowered.

In addition, the loader controls should be located within easy reach.

Pins and Bushings — Pivot joints of the loader arms, the cylinders, and the bucket are all subject to wear and eventual replacement. If these replaceable pins are combined with replaceable bushings, the joints can be restored readily to their original condition whenever wear becomes excessive.

Visibility of Bucket — When the bucket is in the loading position it should be visible from the tractor seat. In some cases part of the loader structure may interfere with visibility. However, this limitation need not be critical if some sort of a rod-and-tube arrangement or other device is provided to indicate the angle of the bucket to the operator.

Structural Rigidity — For long life a "stiff" frame is necessary, because of the variety of twisting loads imposed as the outfit operates on uneven surfaces. The fact that the lift cylinders are arranged one on each side does not reduce the requirement for rigidity. If unequal loads are imposed, the cylinder with the lower load extends more rapidly and distorts the loader until enough resistance is developed in the arms to transfer a portion of the load to that cylinder.

Attachments — Most manufacturers provide a number of attachments that make it possible to use the loader for other jobs in addition to its basic use for loading manure. Examples include fork-lift attachment, crane boom, snow or light-material bucket, dirt buckets, and light-duty dozer blades. If you have use for any of these special attachments, check on the availability of them for the loader you are considering.

Or you may wish to consider the use of an attachment on the three-point hitch. Examples here include light-dozer blade or scarifier for loosening and stock-piling material to be picked up by the loader.

In this situation it's especially important that the hydraulics be arranged so that no extensive changeover is required from one system to another. Ideally the two systems should be completely independent, or at the most arranged so that only an operator-controlled diverter valve need be switched over to change from use of the front loader to the rear-hitch system.

American Agriculturist, May, 1966



See it working in your fields, and...

Actually *seeing* the Allis-Chalmers 302 Baler wade into a big windrow with its five-foot-wide pickup, instantly tells you more about this big-capacity haying machine than we can put into print. See the 48 six-coil pickup teeth sweep that windrow clean. Watch the unique Twin-Feed Rakes, synchronized to keep the hay moving in a steady stream into the jig-formed and welded bale chamber. Uniformity of the

load assures well-formed, uniform bales. You easily set both bale length and bale weight—up to 42" length and 80 lbs. on twine, 110 lbs. on wire. Twine or wire is fed to the knotter or twister by a pair of husky, ductile iron needles. Needles have 3-way protection—from the bottom by heavy spring steel guards, from the ram by an automatic ram stop, and by a shear pin on the control arm if needles should meet an obstruction. In fact, the entire

mechanism is protected at every stress point with shear bolts and/or slip clutches. But, we repeat—seeing is believing, and you need to compare construction, performance and price in order to see just how much the 302 Baler can do for you. Your own local Allis-Chalmers dealer will be happy to set up a full demonstration at your convenience. *Call him!*



See what non-stop's all about—new 302 Baler by Allis-Chalmers!

LAND OF OPPORTUNITY

by Bob Cudworth

"WE'RE NOT after records . . . we're after top profit and a good living for the family. We believe in letting machinery do the work where possible, and feel cows are supposed to make us a living," says Erwin Derke of R. D. 1, Franklin, New York.

Erwin and wife Hilda bought their Delaware County farm in 1961 after coming from Germany with no previous experience in dairy farming.

He has learned well. He was named 1965 Young Farmer of the Year by the Delaware Chamber

of Commerce. His DHIA owner sampler records now read 16,491 pounds of milk, 607 pounds of fat for 46.2 cows . . . and an income over feed cost of \$473 per cow.

Erwin was 14 when the Russians came to his home in East Germany, near the Polish border. The family left there in 1945, moved to Cologne.

The parents and Erwin's two sisters came to the United States in 1951. Erwin stayed in Germany working as a salesman for his brother in a building materials business.

When Erwin and Hilda came to this country he considered starting a business in New York City, but decided against it. He felt he would like farming, bought his present farm (high above the Franklin and Treadwell valleys) in 1961. In 1965 he bought the adjoining farm to make a total of 397 acres.

The original farm he bought had had four different owners in the past few years preceding his arrival. The original herd of 23 cows was averaging somewhere around 9,000 pounds of milk per cow.

Erwin learned dairying by talking with other farmers, sought and received advice from Extension people, attended a lot of meetings.

One neighbor in particular, Jim Davidson, has helped a lot with advice in managing his dairy operation. Erwin is a recent graduate of the Extension Service farm management program in Delaware County, and has been active in soil conservation practices.

Among the first things Erwin did was to clean up the fields, add another 50 feet onto the barn, make wider stanchions, and add a dumping station. He put up a new concrete silo in '62.

Erwin has a field chopper . . . no hay drier . . . so feels he should steer most of his forage program toward silage and haylage.

He presently starts feeding green-chopped corn in early August. When he commences feeding from the silo in October he has enough for two-a-day feeding of silage until July.

Last summer he put up 10,000 bales of hay in 10 days. He uses a crusher and bale thrower, so the only hand labor is unloading.

Last spring Erwin found he could save time, gas and labor by using a double tandem heavy disk twice over corn stubble . . . without turning a single furrow with the plow. He points out that he had to clear off only five loads of stone from the 20 acres tilled in this fashion, where the previous year he had drawn off 50 loads.

Culls Cows Closely

Erwin has learned how to judge cows well and he culls very closely. His herd is bred artificially with sires selected on the basis of production. He feels that such physical characteristics as good udders and hind legs are extremely important for keeping cows producing well and long.

He culls especially the ones that are nervous and hard to milk, so he can cut down on the work time in the barn. He thinks they must make at least 12,000 lbs. as first-calf heifers, and tries to have them calve at 23 to 25 months.

The Derke farm had top labor income in 1964 among farms cooperating in a Delaware County study conducted by the Extension Service. A total of 750,000 pounds of milk were produced last year with 1.7 workers, according to DHIA figures.

"We haven't been afraid to ask questions, nor hesitated to take a chance and invest money when a new and better method seemed to be worthwhile for increasing crop production or saving labor."

Evidently the oft-repeated observation still holds true: America is the land of opportunity if you are willing to invest some hard work and honest determination!



Erwin and Hilda Derke look over DHIA records which show income over feed cost of \$473 per cow.

Weed-free fields



Blue ribbon yields

Crops come on strong when weeds are gone. And DACTHAL takes care of weeds before they ever see the light of day. Your crops have the sun, moisture and soil nutrients all to themselves — for bigger, better, blue ribbon yields.

DACTHAL pre-emergent herbicide kills many weeds and annual grasses as they germinate, so you save on cultivating costs while your crop grows unmolested. One application lasts for a full season.

And here's the best part. Used as directed on the label, DACTHAL is safe. In fact, no other

herbicide offers such freedom of use — it's cleared for more than 30 different crops! And because DACTHAL leaves no harmful residue, you can plant a second crop immediately after harvesting.

How to apply? Spray DACTHAL broadcast or banded, or use soil incorporation techniques. You'll get great results as proved by years of tests and in actual use on farms like yours.

Remember the name. DACTHAL. And forget weeds. A product of Diamond Alkali Company, Cleveland, Ohio and available at your farm store.

 **Diamond Chemicals** **Dacthal[®]**

News and Views from NEW YORK AND PENNSYLVANIA



Big Pumpkin Contest — The third annual Big Pumpkin contest for young gardeners is getting underway. Sponsored by the Men's Garden Clubs of America, the rules are simple:

All entrants must be under 17 years old; they must grow a pumpkin or any cucurbit; the weight of the pumpkin or cucurbit must be certified by a member of the Men's Garden Clubs . . . or, if no member is available, by a local county agent. The weight certification and a picture of the pumpkin or cucurbit . . . and of the contestant . . . should be sent to Mr. George Spader, executive secretary, Men's Garden Clubs of America, Morrisville, New York, by October 20, 1966.

In addition to the national grand prizes, many local prizes will be awarded in city, county and regional Big Pumpkin contests that will be conducted by the MGCA from now through next October 20.

Weather History — "Climatic Series 2, Lower Susquehanna Area" is the second in a series of publications summarizing the weather history of Pennsylvania. Data is presented for weather stations at Carlisle, Gettysburg, Selinsgrove, New York, and for the First Order weather station at Harrisburg. Weather information is given on weekly temperatures, duration of critical temperatures, spring and fall low temperatures, spring freeze probabilities, growing degrees days, precipitation and snowfall. Copies are available from the Bulletin Room, College of Agriculture, University Park, Pa. 16802.

Soil Survey — The Seneca County, New York, Soil Conservation District has just completed its soil survey. Then follows the preparation of the Soil Survey Report by a soil scientist, with the assistance of farm planners, county agricultural Extension agents, agronomists, engineers, foresters, biologists, and others. The report is scheduled to be published by the USDA in 1968, but enough information is available now so anyone can check on a specific plot of land in the county.

Tompkins, Cortland, Lewis, Ontario and Yates counties have soil survey reports, and the one for Cayuga County will be published at the same time as the one for Seneca County.

A Milestone — The Addison Milk Producers Cooperative Association, Inc. has made the final payment on its milk plant . . . making

it the only farmer-owned milk plant in Steuben County. More than 1000 cans of milk are received through the plant each day, and the Cooperative markets more than \$1,000,000 worth of milk each year for its patrons. Congratulations!

Dairymen's League Purchase — The Ogdensburg Creameries, a

large butter and milk powder plant, has been purchased by the Dairymen's League Cooperative Association. The operation will become part of the League's manufacturing division, joining the other plants at Adams, Horseheads, Champlain and Vernon, New York. It accounts for nearly \$9 million annually in income to local farmers, and no changes are planned in operations.

Dairy Festival — The 10th Steuben County Pomona Grange Dairy Festival will be held at Bath, New York, on Saturday, June 4. There will be a parade, band concert, milking contest, round and square dancing, and a banquet in the

evening. Free milk will be served all day.

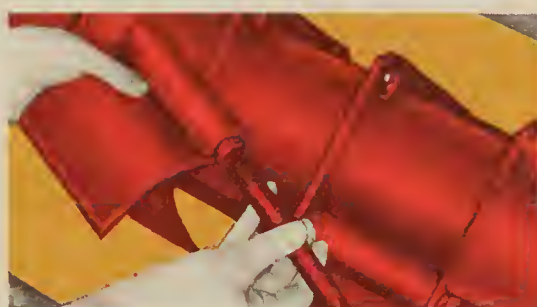
Farm Bureau — John Gold began on April 1 duties as Assistant Secretary and Administrator at the New York State Farm Bureau offices in Ithaca . . . scheduled to move soon to Albany. John was one of the original three fieldmen hired by the New York State Farm Bureau when it separated from the Extension Service in 1955. He was previously Director of Program Development.



John Gold



New Idea *cut/ditioner* cuts, conditions . . . even windrows in just one pass!



Free-swinging knives on a rugged rotor give close-to-the-ground cutting . . . feature long wear and durability.



Heavy duty sealed gearbox encloses heat-treated gears and tapered roller bearings for long service life.



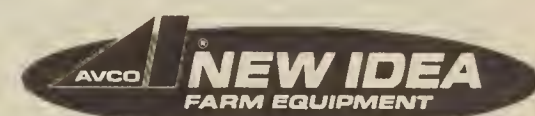
Big disc-type slip clutch gives extra protection against damage from shock loads.

Ready for an efficient "3-fisted" worker? Hook up this new **cut/ditioner** and start enjoying "once around the field" performance. It's everything you want in a mower and conditioner — and then some! Plant stems are bent over, cut, and thoroughly conditioned . . . yet the valuable leafy portions are left undamaged. Uniform-drying swaths give you light, fluffy, more palatable hay. Or, optional shields let you windrow. Best of all, you save time with fast, non-stop, trouble-free performance . . . even in heavy or tangled hay that plugs sickle bar mowers.

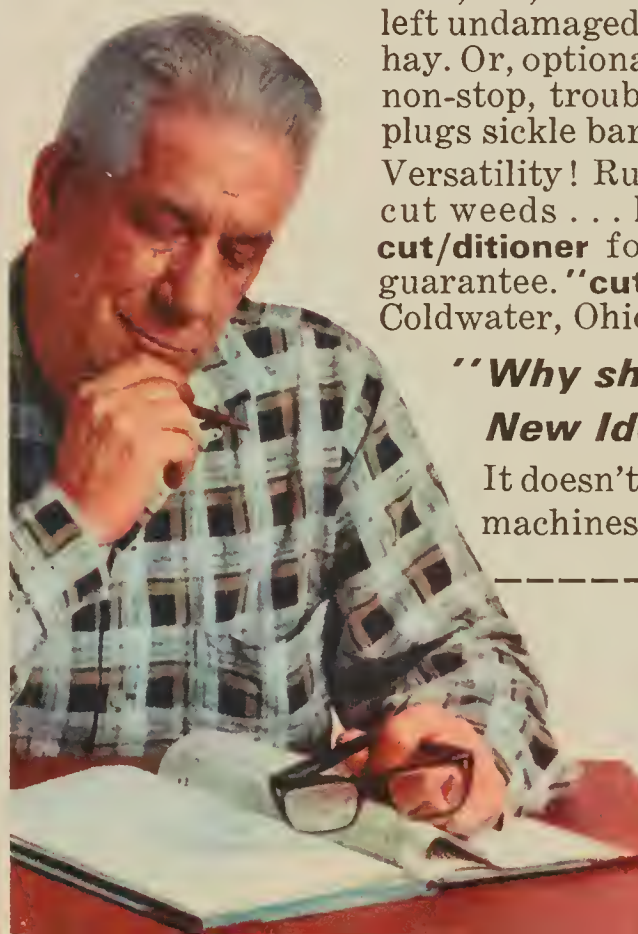
Versatility! Rugged construction lets you shred corn stalks, clip pastures, cut weeds . . . lots of other jobs! Better check a 6 ft. or 7 ft. New Idea **cut/ditioner** for your farm, today. Backed by New Idea's full year written guarantee. "**cut/ditioner**" . . . the 3-in-1 haymaking machine from New Idea, Coldwater, Ohio.

"Why should I buy a New Idea *cut/ditioner*?"

It doesn't make sense to use three machines when one will do all three jobs."



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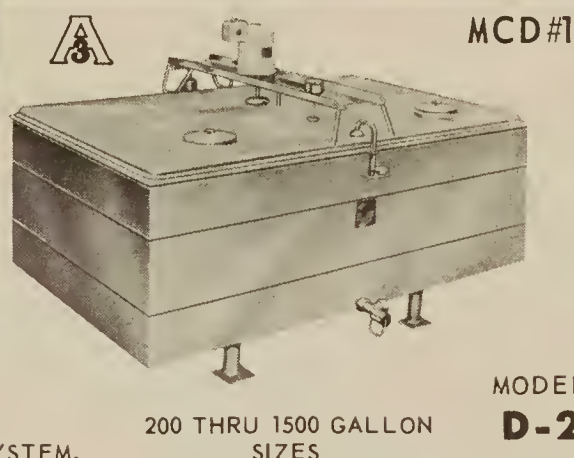
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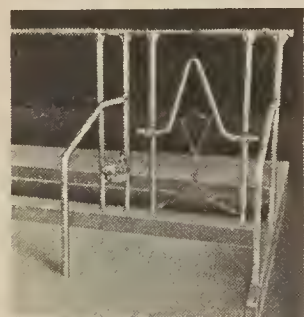
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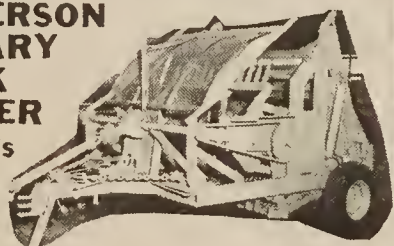
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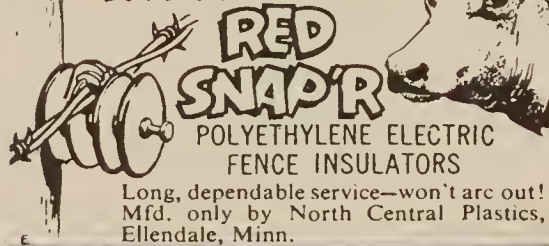


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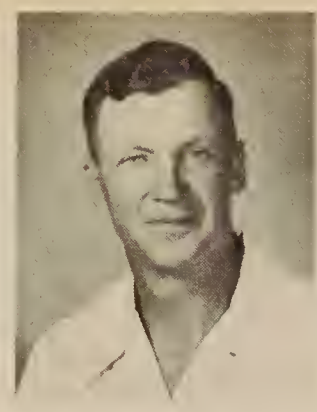
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Gayway Farm Notes

by **HAROLD HAWLEY**

NEW PRODUCTS

Two of the nicer things that have happened to us in our new barn, parlor, and tank room have been epoxy paint and stainless steel in light gauge for sidewalls in the return alley and the parlor.

As part of the learning process some of the backs of the frames which form the herringbone milking set-up were painted with regular and some with epoxy paint. Sure, the regular paint is cheaper, but it costs as much to apply and the ease of hosing and cleaning the epoxy finish makes it worth a great deal more.

The walls of the parlor, return alley, and hospital room were covered with light-gauge stainless steel up to a height of 40 inches. This is quick and easy to apply and, of course, is a permanent affair needing no painting, waxing, etc. The real payoff, in addition to its really nice appearance, comes in the ease of keeping it clean. If it is damp when manure spatters on it there is no problem in spraying the surface clean after milking is finished.

Speaking of spraying reminds me of another little thing we've learned the hard way. We tried out several high pressure pumps and didn't really like any of them. Finally it dawned on us that it was the nozzles which were at fault. Most nozzles are like those on garden hoses which break the water up. We finally took a 6-inch length of 1/2-inch pipe and threaded on a regular cap. The cap was drilled with an eighth-inch hole through the center. On the inside of the cap the hole was reamed out a little so the hole was actually tapered from the inside. Instead of breaking the water up, this nozzle concentrates it into a small stream which really has power. We have 80 lbs. pressure from a pump installed in the line. With this combination, cleaning up the parlor is a pretty short job.

GADGETS

One of the things we have found a real need for as we have expanded our herd has been more and different records. Sure, we always kept production and breeding records and a little on health . . . at least, a note that this cow had milk fever or acetonemia, etc. However, a lot of other information was carried in our head. With more cows and less chance to handle them individually, better records are a must.

We are using a gadget which helps us to keep and to see our whole breeding record at a glance.

It's a large wheel on which every cow's breeding story is shown. Her number is shown on a pin which is inserted in the wheel. The position on the wheel shows how long she has been fresh, or bred, etc. The four sides of the pin are different colored, with each color telling whether she is fresh, open, or bred and whether pregnancy has been checked. Each day the wheel turns 1/365th of a turn so every cow's pin moves ahead one day — one more day that she's been fresh, or bred, or one day closer to the freshening or drying-off date. At a glance we can see what cows we should be thinking about . . . those due to dry off or to freshen, those fresh long enough to breed back, and those bred long enough to check, and those not yet bred that are past the 60-day point.

I'm not much on gadgets, but this little device has been making us money by helping us do a better job. I've looked at a lot of other people's systems and know that they work for them, but none seemed just right for us. Our old system just wasn't good enough for our present size and set-up so we were ripe for and needing something better and different. We're glad we have it.

WHICH?

Burn 'em, feed 'em, poison 'em, dehydrate 'em, or tear 'em out? There are probably other alternatives, for certainly there are a lot of ways to combat weeds. So many ways should mean the end of all weeds . . . but I'm guessing we will still be fighting them for a long time.

Flaming devices for weed control are not new, but only the last year or so has anyone been doing anything about promoting them locally. In theory, flaming-off weeds beats atrazine or other materials which may not be uniformly effective in a dry season. However, it is clear that only a chemical can give full-season weed control.

The cost of atrazine is small compared to the benefits, but this doesn't keep one from observing that \$800 to \$1,000 a year for chemical weed control is a fair item of expense. It seems even worse if a dry season reduces the effectiveness of the weed control. Hence my interest in burning off the weeds. If we can find someone who wants to do some custom-flaming on some corn this year we will give it a whirl. It's just contrary to my old Yankee conservatism to buy equipment until I've seen it done once.

We've just about given up on 2, 4-D for corn. Sure, we can get (Continued on next page)

a pretty good kill early, but the weeds still get up in the corn later . . . especially pigweed. Atrazine fits us better for this reason, but we haven't learned to use it well enough yet for it to be an unqualified success. Last summer's oats crops showed skips, especially at the ends, due to overlapping the applications as we turned on the headlands when we sprayed corn with atrazine the preceding year.

Far and away the best thing we've done to control weeds for a while after corn planting is to leave the ground loose. Once over with the disk after plowing is it, even though the ground is left a little ridged and gouged. Actually, to get away from the ridging we are going to fasten a couple of old drag teeth behind the disk to knock down the center ridge.

It's amazing to see weeds sprouting wherever the wheels of the tractor and planter go, while where the ground is loose on top the weeds just aren't able to get started for quite a while. This is the "dehydrate 'em" method.

In spite of all the talk of throwing away the cultivator we still run over our corn once. Even if atrazine is used, we like to loosen the ground up when the corn is a couple of feet tall. At that time, the rye grass can be broadcast and it catches pretty well. We are mostly convinced that atrazine doesn't hurt the stand of rye grass. This is contrary to what some say but that has been our experience . . . so far.

INSPECTION SAFETY REGULATION?

In theory, the inspection of some older cars should and probably does make the cars which are on the road a little safer. We are all for this. Now we find that whenever a used car of any vintage is sold, it must be inspected before it

can be registered by the new owner. I fail to see why a car 18-months old needs inspection because it was sold, if it did not need it as long as it was held by the first owner. If anyone can explain the safety angle here, I'd be glad to listen.

Next may be the ruling (if proposed legislation by the Joint Legislative Committee on Motor Vehicles and Traffic Safety is passed into law) that all cars, new and old, must be inspected. This leaves me cold as a clam. If a brand-new car isn't safe it never ought to be allowed to be sold in the State. If it is safe and its design, tires, etc., etc., etc. meet requirements, what earthly reason can there be for inspection?

The other feature of this whole inspection racket that galls me is the fact that most of the places around here won't inspect a car late in the period. The stickers apparently run out and have to be used in a given period. Rather than have some expired stickers left and take the loss, most garages order them sparingly, with the result that it is a real headache to get a car or truck inspected at certain times. Likewise, while your favorite service station may inspect your car he may not touch your truck; that must be inspected elsewhere. At just some point it would be nice if the motorist got a break.

Maybe it's not too surprising that this condition exists, however,

because at no time have I seen any evidence that the Department of Motor Vehicles is in any way concerned about the inconvenience they cause people in trying to get their cars licensed. It's par for Doris to make three trips to Auburn to get our five vehicles all legal for another year. If I sign anything, then her signature or her signing for me is out. They think nothing of sending Doris home for a signature, only to greet her upon her return to their office with the information that they will need this form filled out with my signature on it. The public must pay taxes to pay people to do the kind of a job which no private business would tolerate for a minute!

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**GET BETTER TREE
PERFORMANCE**
*Weed Apple
Orchards with*
AMIZINE
HERBICIDE

WATER INFORMATION

The conservation of our most important natural resource is the subject of a new publication by Calgon Corporation. Its title: "The Challenging Problems of Water."

Calgon Corporation, a supplier of water treatment products and water engineering services to industry, municipalities, and the home, has prepared the brochure in non-technical terms. It presents an interesting story of water use and reuse and an easy-to-understand description of modern practices in industrial pollution abatement.

Anyone interesting in having a copy of this publication can obtain one by writing to: Public Relations Department, Calgon Corporation, Calgon Center, Pittsburgh, Pa. 15230.

"The Challenging Problems of Water" also lists publications which are available for further reading on the national water problems, and indicates the sources of sound and color films that tell the story of water.

American Agriculturist, May, 1966



FOR maximum growth and higher yields, control vegetation around the trees in your orchards. You can do an outstanding job—and save labor and production costs—if you use Amizine herbicide.

Just one Amizine application around the base of each tree kills existing weeds, and prevents new weed growth for most of the summer. Apply before fruit starts to form—follow label directions.

You'll find Amizine easy to use—non-flammable, odorless, non-corrosive to metal, and containing no arsenic. Marketed as an economical wettable powder concentrate.

So get more weed killing power for your money—get top kill, root kill and residual protection against weed regrowth. Get Amizine herbicide today from your supplier.

amchem

First Name in Herbicide Research

People buy

(Continued from page 4)

nent product failed because it took the mother and daughter approach . . . Dad will love you both. The mother, who does the buying of these products subconsciously resented the daughter being included in the ad. She didn't want competition for the recognition and affection she expected from her husband. Consumers desire personal recognition.

(3) A desire for new experiences (excitement, thrills).

Women like new and exciting experiences, new recipes, new packages, new point-of-purchase materials. Make your market, your display and your specials new

every few days by adding a variety of touches that give an aura of glamour, adventure, and excitement.

(4) A desire for achievement or response (creativity, reward, reinforcement).

The classic illustration is the innovation of ready mixes for cakes. At first they required only the addition of water. Motivation research revealed, however, that housewives felt guilty about getting praise for something they didn't create or achieve for themselves.

The manufacturer remedied this by removing the dried eggs from the mix and stating on the instructions that the package contents

should be mixed with water and a fresh egg beaten into it. This did the trick . . . sales jumped. It permitted the woman to satisfy her need for achievement and creativity by giving her an opportunity to contribute something to the activity. Often women enjoy being involved in the selection and packaging of products at your market.

Another example of activities that helps meet the consumer's need for achievement is saving trading stamps . . . this is in large measure the reason for their popularity. Trading stamps may be a useful competitive tool for roadside marketers since their business often competes on a non-price rather than price basis. Coupons,

contests, and the like are similar approaches. These deserve consideration.

Marksmanship

Let me tie together consumer desires, needs and motives within the framework of what we'll call "marketing marksmanship." Let's look at the kinds of arrows needed to penetrate the target not only from tangible viewpoints but also in terms of people's desires, needs and motives.

The image of your store or market is not what you think it is, but what other people think it is. To project a favorable image, your roadside market must meet people's desires or motives.

For instance, do you guarantee your merchandise?

What about weights and measures? Shoppers feel better if a customer's scale is available to them . . . even if they don't use it, the presence of it creates confidence.

Are the apples or peaches on the bottom of your pack "okay"?

Is every area clean? Studies we conducted show that one untidy or dirty-looking department can reflect an image of "health hazard" to the whole roadside market. This makes the customer feel insecure about your foods.

If you sell eggs, watch for broken ones that will drip over the customer or her auto on the way home. Women have a real fear about transporting cartons of eggs . . . we found in a Houston study that this was the main reason for preferring cartons over-wrapped with cello-film. It was also a reason for buying eggs from door-to-door peddlers rather than at markets.

Can your customers walk up and down the aisles of your market without doing a two-step in and out between cartons from which you are refilling inventory? Is your market littered with full and empty containers? Put them out of sight.


Price signs are important . . . grocers call them "shelf talkers." They tell the customer the prices without her having the embarrassment of asking you. People don't like to ask prices if there is a risk they won't buy that item. Put lots of price and other information at the display. "Knowing" these things helps consumers satisfy their need for achievement.

Signs

The highway signs and advertising that marks the approach to your market also projects an image. A Beverly Hillbilly effort with multi-size letters, wrong spelling, runny paint smudges, and a board or two hanging off it can hardly be expected to project an image of quality and imagination. Signs should be attractive, colorful, neat, and readable.

Signs should give information immediately pertinent to the consumer who is driving past in an auto. Tell briefly what you sell, how far ahead your market is . . . which side of the road . . . and price information on one or two

(Continued on next page)



Where will
your midnight oil
come from?

Gas stations do most of their business at pumps.

Agway does it at farms. So we know when you have to burn midnight oil.

We see that you get it.

And that goes for greases, guns and cartridges, gasolines, diesel fuels, oil filters and other accessories. It doesn't cost extra.



Agway

AGWAY
PETROLEUM
SERVICE

of your "special" items.

Space signs along the highway well ahead of the approach to the market in sufficient numbers (say 3 or 4) to catch the glance of that driver traveling 60 to 70 m.p.h.; give the information time to register with her so she can plan a stop ahead at your market. If possible, provide an extra "lane" . . . 60 to 70 feet long . . . for traffic to enter into and slow down before turning, and mark this lane with a sign. Make the actual turnoff curve wide and smooth rather than a sharp turn. Provide adequate parking that doesn't block the drive-in area.

Project a favorable image of your roadside market through your appearance, your good manners, the market's cleanliness, and a tidy, gay, glamorous and exciting atmosphere. Your market can project an image which creates the consumer attitude that shopping is rewarding . . . pleasant . . . exciting . . . fun.

You might also consider combinations of enterprises in your roadside market . . . gift shop, refreshments, even children's pony rides or a "roadside zoo" that draw consumers to your operation because they are nearly always indulgent toward their children. Also, these things help give a roadside market a uniqueness in its bundle of attributes that could well attract families on their weekday, evening and Sunday afternoon drives.

Word Approach

Think about the things you say to customers. One of the favorite expressions we have is, "How are you?" Now, let's examine that for a minute. What happens when you say to me "How are you?" Well, I have bursitis, sinusitis, germititis, and a sore throat. I have some trouble with my ulcer . . . would you like me to go on about these things? No. You don't have time to stand around waiting for the answer.

So why don't you stop asking people how they are, and begin using a positive approach in your conversations? Next time you greet a customer, say, "Good morning Mrs. Smith, you're looking well this morning." What a magical phrase! I have seen people who look absolutely dejected, but when you say "you look well" their shoulders go back, their heads

come up, and they take a whole new lease on life.

Typical Shopper

The typical woman shopper . . . "drawn" from some 12,000 interviewees . . . was profiled as follows:

She is 35 years young, has two children and brings them with her to shop about half the time. Her husband makes a little under \$6,000 a year; she spends about \$1,200 of this on food. She drives two miles to the food store, passing another supermarket on the way because the people there don't seem helpful or polite enough.

She does not carry a shopping list but uses the market itself as a reminder of what to buy. She

changes brands often for no reason, and is a pushover for new items, whether foods or household gadgets. She loves to buy items that have recipes on the package. She changes stores from time to time to be a good shopper, and for the excitement of trying something new.

She loves trading stamps, coupons, and games of chance to satisfy her desires and needs for achievement, hoarding or gambling. She is an eye-level to waist-level shopper. Merely by moving a product 18 inches higher on the display rack, the merchandiser can increase its sales . . . and sometimes its price.

She likes to buy from filled

rather than partially-filled shelves. Except for those items she uses constantly, she cannot remember prices from day to day, and her arithmetic is terrible. She invariably goes for 10 cent items sold three for 29 cents . . . but she will also buy more of a 33 cent item if it is offered three for 99 cents!

Roadside merchandisers, part of your job is to lie awake nights dreaming up new ways to woo and beguile her, set some tender traps for her and put an element of romance, glamour and excitement into the prosaic roadmarketing business. If your wife thinks you're being overzealous with these consumer women, tell her you only love them for their money!



**"What do I like about Farm Credit Service?
It's an organization run by farmers."**

"They understand farm problems. Complete credit services are available to cover every farm need."

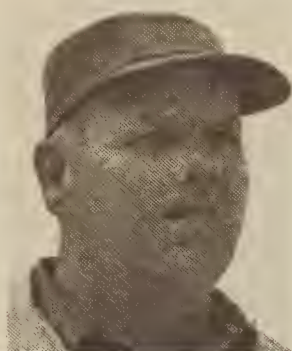
J. Wilson Hughes, Broad Acres, Aura, New Jersey.



**"FCS is made up of farm people.
I like them."**

"They know me. They know my problems. I raise poultry . . . 12,000 layers a year. At times I have problems . . . plenty of them. The easy, convenient and low cost way of solving those problems is through FCS."

Elmer Rasi, Ashby, Mass.



**"A farmer has to be flexible.
I can't depend on the weather."**

"I can't depend on the market. But I can depend on FCS to help put things straight. They go along with me with variable repayment loans. And I pay interest only on the principal."

Stanley N. Chittenden, Fair Weather Farm, New Lebanon, N.Y.



**"Farm Credit Service is one of the best
tools on our farm."**

"We operate a 1,000 acre dairy farm. 450 head of dairy cattle can occasionally cause money problems. I have been doing business with FCS and the Federal Land Bank since 1935. Now both my son and I are using FCS money to make money. That's how we stay in business."

Philip G. Andrews, Riverside Farms, Fryeburg, Me.



**"FCS understands things like hail damage . . .
or a sick wife."**

"Farming is a complicated business. We live with it 24 hours a day. A bad crop, a poor market or sickness in the family is all a part of the farmer's life. Sometimes we need money . . . in a hurry. Sometimes we need advice. That's when we need FCS. It takes farm folks to know a farmer's problems."

Charles A. Russell, Russell Farms, Inc., Appleton, N.Y.



**"I don't have time for red tape.
That's why I do business through FCS."**

"I realize that all bankers are businessmen. But they don't all know the farm business. When I go to FCS I am dealing with farmers . . . people who know my business. It's like doing business with yourself . . . because you're actually a shareholder in FCS."

Fred J. Bova, Melody Lane Farm, Burke, N.Y.

FLETCHER THE 4-H'ER
© JOE E. BURESCH



"YES, I HAVE A QUESTION . . . IS THERE ANY APPLE PIE LEFT?"

American Agriculturist, May, 1966



**FEDERAL LAND BANK AND
PRODUCTION CREDIT
ASSOCIATIONS**

CONNECTICUT—Hartford, Litchfield, No. Windham. MAINE—Auburn, Ft. Fairfield, Houlton, Madawaska, Newport, Presque Isle. MASSACHUSETTS—Rutland, So. Deerfield, Taunton. NEW HAMPSHIRE—Nashua. NEW JERSEY—Bridgeton, Flemington, Freehold, Moorestown, Newton. NEW YORK—Albany, Albion, Auburn, Batavia, Bath, Binghamton, Canandaigua, Canton, Cobleskill, Cortland, East Aurora, Ft. Edward, Fultonville, Herkimer, Horseheads, Hudson, Ithaca, Kingston, Lafayette, Liberty, Lockport, Lowville, Malone, Mayville, Mexico, Middletown, Mt. Morris, Morrisville, New Hartford, Norwich, Olean, Oneida, Oneonta, Owego, Penn Yan, Pleasant Valley, Riverhead, Rochester, Sodus, Warsaw, Watertown. RHODE ISLAND—Greenville. VERMONT—Burlington, Middlebury, Montpelier, Newport, Rutland, St. Albans, St. Johnsbury, White River Jct.

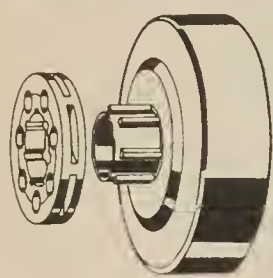
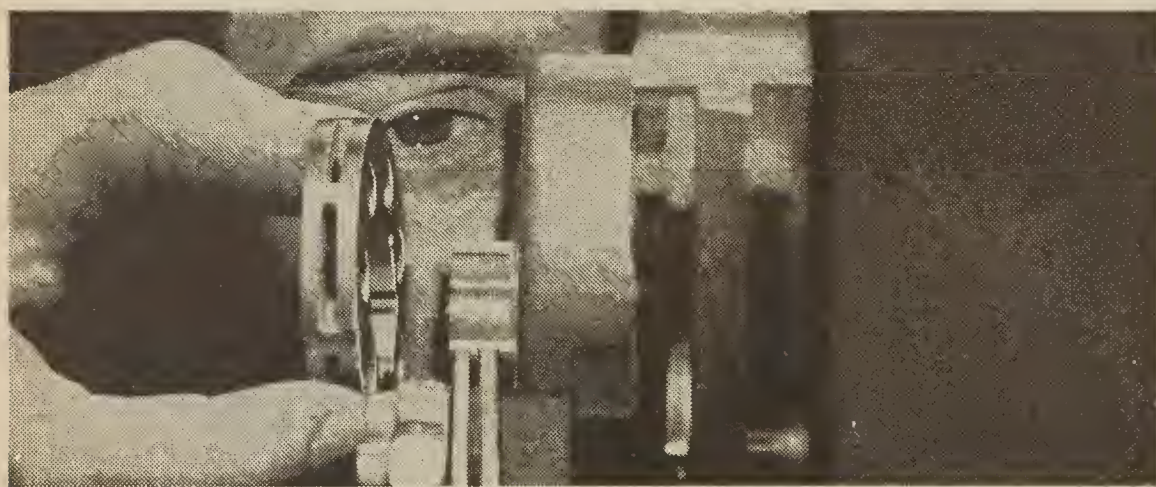


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Arm your crops with Thiodan, and plundering insects have just pulled their last job. You'll get sure-fire protection. For 16 different vegetables (strawberries, too). Against 33 different pillaging, pilfering pests. Far longer than with most commonly used insecticides. Why risk crop—insect skirmishes that result in losses . . . use Thiodan.

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Line Up With New Self Aligning **OREGON®** POWER MATE RIM SPROCKET For Direct Drive Chain Saws

These new sprockets will save you money, give twice the life of your regular sprocket.

The POWER MATE is a two part sprocket: rim and drum. The rim is self aligning so the chain is mated to the guide bar. This gives smoother chain operation, less bar jumping, strain, and drive link damage. Replace only the rim when worn as the drum will last for two to six rims.

Ask your OREGON dealer for a new POWER MATE SELF ALIGNING SPROCKET. Made in 3/8", .404", 7/16" and 1/2" pitches.

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THE PERFECT CUTTING TEAM:
OREGON CHAIN, BAR
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COWPOX®—RINGWORM Teat Sores, Skin Abrasions

* Blu-Kote dries up cowpox lesions, controls secondary infection. Germicidal. Fungicidal, protective wound dressing. Quick drying . . . penetrating. 4 oz. bottle \$1.00 at dealers or mailed postpaid.
H. W. NAYLOR CO., Morris 9 N. Y.



We took a look at

CLASS I BASE PLANS

by John C. York*

IS A Class I Base Plan needed by Northeast dairymen . . . and more specifically by dairymen in this New York Federal Order II area?

Interest has certainly been high among dairymen for the past several months to learn more about Base Plans. And this is only natural when one looks back on the period of relatively stagnant milk prices that have failed to keep pace with rising farm costs.

Despite amazing improvements in efficiency, most dairymen have been unable to see similar improvements in their net income. Many have dropped back in net income, many have had to sell off their herds, because the present milk-pricing formula in Order 2 fails adequately to recognize increased costs of dairying and to reward the dairyman who produces in line with market needs.



John C. York

Equal or Equitable

Among the problems of milk marketing there is also emerging another situation that applies particularly to the function of cooperative organizations. The question of whether or not members of co-operatives are treated equally or equitably is a subject that is of more and more concern to co-operative leaders. Perhaps the basis of this concern, at least in the dairy industry, comes from the enlargement and merging of marketing areas, the merging of cooperative organizations, the application of federal milk marketing orders with marketwide pooling provisions.

These basic conditions have tended to distort both price relationship and response to a particular market, and thus have placed the individual dairy farmer on a regional or national level . . . with little or no opportunity individually to develop a pattern of performance that would reward him. Consequently, it is being strongly emphasized by some co-operative leaders and educators that if equity is to be maintained among cooperative members, the individual member must be rewarded for his particular program of production.

Therefore, it was quite logical that meetings should be called in Syracuse, New York, by the New York Market Administrator, and in Framingham, Massachusetts, by the Boston and Connecticut Administrators to discuss base plans.

Agitation has been increasing ever since last summer's hearing in New York when much opposition was shown to the present coopera-

tive payments provision in Order 2, and last fall's Philadelphia hearing where the individual handler pool was opposed.

We, at Eastern Milk Producers, felt we could not make worthwhile recommendations about Base Plans without studying some plans in actual operation. So our Federal Order committee made a tour of seven areas where Base Plans are in effect to (1) learn some of the background and reasons why a Base Plan was developed, and (2) determine the actual feelings of dairymen and administrators on the practicability and effectiveness of each plan.

Our group included Eastern President Paul Walizer of Bellefonte, Pa.; and Directors Irvin Schell of Evans Mills, N.Y.; Floyd Kwiatkowski, Owego, N.Y.; Roland Osborne, Columbia Crossroads, Pa.; Donald Jones, Homer, N.Y.; Max Lonstein, South New Berlin, N.Y.; Cyril Filiatrault, Gouverneur, N.Y.; and myself.

During our survey trip we were able to talk with administrators, co-op leaders and dairymen on how Base Plans were working in Vancouver, B.C.; the Puget Sound area, Washington; Oregon; Phoenix, Arizona; mid-south of Memphis, Tennessee; and the area of Southeast Milk Sales Association. Southeast covers parts of Kentucky, Virginia, West Virginia, Tennessee, and North Carolina.

Certain principles were common to all markets visited, and I would like to mention some of these.

As with any milk marketing plan supervised by the U.S. Department of Agriculture, each program's primary concern was for the actual needs of consumers in the marketing area. In each case, the fluid needs were determined and then a reasonable reserve (ranging from 10 to 20 percent) was added to the figure.

Class I bases were established and allotted to individual producers, with some provision made for hardship cases and new producers who might wish to ship milk under the particular order. In other words, each producer was given his personal share of the Class I milk market in that area.

Additional Milk

After Class I bases were established, producers who sold milk in addition to their personal share of the market were doing so at the manufactured price. This Class III (or manufactured milk) price was low in relationship to the Class I base price . . . and tended to discourage overproduction.

As one executive in Vancouver area pointed out, "We can't afford to produce milk at the manufactured price level. We need to have facilities which will take care of necessary reserve supplies, but not plants to process milk just for the

(Continued on next page)

* Executive Secretary, Eastern Milk Producers Cooperative Association, Inc.

sake of maintaining a volume operation."

We felt that this tied in quite closely with another point that Base Plans were encouraging individual farmers to produce milk more nearly to fit the needs of the market.

For example, the manager of one group said, "Farmers in our market are now more conscious of the value of manufactured milk." Another said, "Farmers are comparing a cow's worth against the manufacturing price of milk, instead of the blend."

Another important objective which most of these Base Plan areas feel they have accomplished, is bringing maximum returns to producers of their own areas . . . and still keeping out outside milk.

One spokesman said, "We cannot and do not intend to produce milk at world market prices." Another commented, "We want to see our market remain healthy. We will call on Wisconsin for extra milk if it is needed, but we operate under a program that shouldn't create too much milk, nor too little milk."

Improved Image

Another point which we heard in these areas was that dairying's public image had been improved. Some felt that producers were showing more responsibility toward their market. In these days of adverse publicity about government subsidies, with the consumer knowing all too little about the complexities of agricultural marketing, it is good to have the buying public and the press feel that the dairyman is taking more direct responsibility in balancing production with the needs of the market.

The people we talked to felt that if dairymen did not assume the responsibility of production that Congress might some day delegate that authority to some government official or body.

How does a Class I Base Plan influence the size or type of individual farm operation?

General opinion seemed to be that mechanization tends to produce bigger units whether a base plan is in effect or not. One spokesman in Arizona pointed out, however, that "A Class I Base Plan allows a producer to grow at his own rate, not at a forced rate in order to keep pace with the market."

Another comment we heard was: "This system of marketing is a type of insurance policy for the family farm." He and others felt that base programs brought about greater efficiency, helped a family farm operation to make reasonable plans for the future.

Another significant comment was that a base provides a farmer equity which he can sell or transfer so he can get out of farming respectably, and at a profit, when the time comes.

The mechanics on how each plan operates differ considerably, although the basic premise of an allotted production quota to each producer for Class I milk is common to each.

We were impressed with the

long-range planning, the more orderly production to fit market needs, and the stability these plans seem to provide individual dairymen.

In New York, at least, the present blend price system . . . with its cooperative payment provisions . . . does not achieve the price to farmers, orderly production to fit market needs, nor the sensible payments to cooperatives for realistic services as originally planned.

I feel the time is here for a complete reassessment of how dairymen should be paid for their milk. In the definition of a cooperative organization, the investment, the special risks, benefits gained or losses incurred are shared equit-

ably with its members in proportion to their use of cooperative services. If we are to equitably treat the members of a cooperative organization under the foregoing circumstances as outlined, more concern must be given to the individual producer's pattern of production in relationship to the market milk demand.

A Class I Base Plan should be carefully examined for Order 2 area, and perhaps the rest of the Northeast.

Some Details

Who makes the allocations, determines hardship cases, and makes the other critical decisions that come up under Base Plans?

We found there was no set pat-

tern in the areas we visited, and that the control depended on the type of plan that had been established. Here is how it worked in each of the areas:

Vancouver

Vancouver's plan, established in 1958, is administered by a 3-man board. The chairman is from the British Columbia Control Board, one member is an accountant, and the third member is elected by producers.

The original period used to establish bases was an average of each producer's production for the past two years. When a new producer is given a base, he receives the manufacturing price for a full

(Continued on page 22)

Pick up your phone. Dial! Then instead of pulling into an Atlantic Service Station relax, let an Atlantic Service Station pull into your farm! The familiar Atlantic "service station on wheels" carrying all your petroleum needs will answer your call. Then the same quality Atlantic gasoline available on the highways will start working for you on your farm.

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It only takes one finger to see him. It could be the best move you make all day.

For quality gasoline, diesel fuel, motor oil, heating oil, kerosene . . . for prompt deliveries, loan of equipment, complete service . . . call The Atlantic Refining Company or your Atlantic distributor.



Produce a
service station
with one finger?



Class one

(Continued from page 21)

calendar year. Then he receives a base equal to one-fifth of his production and it takes five years to earn a full base.

The Milk Board increases bases when fluid sales increase, acts on hardship cases and transfers of bases. Current value is \$16 to \$18 per pound of daily base.

Puget Sound

The Puget Sound area has only a base rating plan, not a Class I Base Plan. The base rating plan started in 1951 when the federal order was established, and a Class I plan is now being developed.

The present program is under

the direction of the Federal Order Market Administrator, who makes decisions in hardship cases.

Bases will be established on 1964 or 1965 production . . . whichever is higher. Producer bases are adjusted in February of each year, computed on previous calendar year's average daily Class I sales, plus 20 percent.

New producers can get a full base in four years, and bases are transferable.

Oregon

In the Oregon area, a Milk Stabilization Act was enacted in 1961. The National Milk Producers Federation had made a study of the market and recommended a federal order. The industry decided

against adoption of the federal order in favor of the Milk Stabilization Act which provides for minimum prices to producers, boundaries of the milk control area, and producer quotas.

Interstate movement of milk, particularly from Idaho, has caused numerous problems in Oregon. As a result, serious consideration is being given to the establishment of a federal order with Class I Base Plan.

The four lowest individual production months in the past 12 months are used to establish each producer's base. The four low months are used to avoid producers gearing their production to particular designated periods.

Bases may be transferred only with sale of entire dairy herds, and all transfers must be approved by Oregon State Department of Agriculture. Transfer of base with herd normally adds about \$3 per pound of base to the value of a cow.

Phoenix, Arizona

In the Phoenix area, the United Dairymen of Arizona . . . a cooperative . . . was responsible for initiating the base program which was established in 1960. The program is administered under the co-op's jurisdiction.

The base period selected was August 1 to December 1, 1959, and bases established were frozen at that level. At present there is no provision for revising bases although bases can be increased by the co-op if conditions warrant.

In this area no new bases are allotted. They must be purchased from a producer who has an existing base. Bases are transferable to bonafide producers, with the current value of bases at \$9.50 per pound.

Mid-South

The Mid-South Milk Producers Association of Memphis, Tennessee, started operating its quota plan in 1947 and has made only minor changes.

The plan is administered by the Association through its board of directors, and the milk plants are regulated under the Memphis, Tennessee, Federal Milk Marketing Order. The producers all have bulk tanks.

A quota-forming period of September through February is used since it is the low production period. All producers' quotas are automatically revised each March 1.

Bases are increased when fluid sales increase, and producer bases are reduced if the producer does not produce the full amount of base (or quota).

New producers may secure quotas from other producers, and provisions are made for hardship cases.

Southeast U.S.

When the Eastern committee met with Southeast Milk Sales Association in Bristol, Virginia, it found this cooperative worked with several different versions of base plans.

In the Piedmont Division, mainly in North Carolina, the producers operate under base plans that are dealer-dominated. A state Milk Control Board administers the program.

The Appalachian Division which covers parts of Tennessee, Virginia, West Virginia and Kentucky, operates under Federal Order.

In Virginia a state Milk Control Board administers the base plan which has been in effect since the 1930's. The base is adjusted according to increase in Class I sales but no provision is made for new producers. Bases are transferable, valued at from \$5 to \$20 per pound.



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CORN OR SOYBEANS

by Amos Kirby
New Jersey Editor

ON THE eve of corn and soybean planting time it is still a toss-up which crop will show the biggest change in the 1966 planting schedule in New Jersey. As of now, the chances are that corn will show a positive gain when the last piece of land has been planted.

While the soybean has been gaining in popularity in recent years, there is a possibility that it has reached its peak. Market outlook is excellent, but the per-acre soybean yield has failed to break through the 20 to 25-bushel level... while corn has moved beyond the 100-bushel level, and yields of 125 bushels or more are being reported.

In 1965, Delaware made a big shift. From 1960 to 1964 Delaware had built up its soybean acreage to 200,000 acres. In 1964, soybean yields in Delaware averaged slightly above 12 bushels per acre, even though in the State contests yields of 40 or more bushels were harvested.

In 1965 the State began to shift to corn, and soybean acreage declined. At harvest time last October growers who had been producing 12 to 25 bushels of soybeans were harvesting up to 150 to 175 bushels of corn per acre.

Corn in New Jersey

While Delaware has a huge market for corn direct to its expanding broiler industry, New Jersey... if it expands its corn acreage... will largely be directed to the feeding of the dairy herds. Last year's prolonged drought, the restrictions on the use of the best pesticides in control of the alfalfa weevil, and light yields of hay, are causing most dairymen to turn to silage corn for the bulk of their roughage.

As of now, there will be little or no reduction in the acreage of alfalfa, yet more acres will go in either corn or sorghum. Incidentally, there are dairymen who like sorghum as well or better than corn!

New Jersey growers have a goal of 125 bushels of corn, or 25 tons of silage per acre. This calls for good housekeeping methods, but it is attainable.

SPECIAL BRICKS

The Mobil Oil Company has developed bricks which when lighted will keep the frost away on cold nights, will burn for hours, and replace smudge pots, old tires, etc. These are being tested in the Cagganio Orchards near Bridgeton... and have already been tested satisfactorily in the apple orchards of Washington State and in citrus groves in Florida.

PLOWING IT UNDER

There are changes in applying fertilizer in New Jersey this year; it is joining lime and being plowed under instead of being applied at planting time. No longer are growers depending on rain to

carry the plant food down to the root zone; plowing it down insures it will be there where needed.

Back in 1965, where fertilizers had been applied after planting and some irrigation practiced, the roots came up to the surface... and the hot soil burned them.

If fertilizer is to be applied after planting, one form or another of nitrogen is recommended. Nitrogen does move with the rain or irrigation, while the potash and phosphorus stay fixed in a very narrow area. Strawberry growers have

used straight nitrogen rather than a complete fertilizer for spring application; the same goes for corn, tomatoes, and many other crops.

Which is the best way to apply fertilizer, wet or dry? The opinion of many agricultural agents is that it makes little or no difference. The important points are to see that the amount of plant food is available, and to compare cost per pound of plant food.

MANAGERS' SCHOOL

I attended as a guest of the College the farm management seminars conducted at Rutgers recently.

Two of the most important lessons centered around the absence of sound supervision of workers

in the field, and that much of the major problems between management and workers comes from lack of communication between the foreman and the workers.

The matter of communication may be at the bottom of many of the problems with the Puerto Ricans. These men come to the United States; they do not speak our language, and the farmers don't speak Spanish. The crops are new; the climate is different; they are in the same field but oceans apart. Until the grower can get his message across the worker cannot do his best, because he has not been properly informed on what should be done or what he is expected to do.



How you can bring happiness to millions of gallons of water just by saying three little words

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To water, happiness is a thing called Ultra-line. Our special scientific Laughing-Water-Meter has proven that. We assume it's because Ultra-line plastic pipe is so smooth inside that water can run full tilt. And because there's no way it can rust or corrode, the water stays pure. In addition, Ultra-line coilable polyethylene pipe is so strong almost nothing will crunch through. It gives water that secure feeling. And just to make sure of the

security, we give you a non-prorated 10-year Warranty covering complete cost of pipe and installation. Driscopipe Ultra-line is backed by years of research and testing, and approved by the National Sanitation Foundation. It gives you a happy feeling because it's easy to install. Bring happiness to water. Ask your hardware dealer, contractor, or water well driller for Ultra-line.



DRILLING SPECIALTIES COMPANY
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EXTRA SUMMER FEED

Summer annuals will splice out your roughage supply.

by Loy V. Crowder*

SORGHUM-SUDANGRASS hybrids and true sudangrass hybrids moved onto New York farms at an ever-increasing rate during the past three years. Acreage is up by a margin of 50 percent since 1962.

A major reason for this is the need for summer feedstuff that has brought strong pressure for a supplemental crop. Forage deficiency during the summer has been conditioned by two things: low rainfall . . . and movement toward storage feeding, with less emphasis on pasture production.

Types

A number of summer annual types exist but they may be classified in a general fashion as shown in the table. The list is by no means complete, nor does it constitute a recommendation. Approximate number of days required for maturity in the general vicinity of Ithaca, New York, are also given. This may be shortened to some extent in New Jersey, Southern Pennsylvania, and the lower Hudson valley.

Use and Management

The most common usage of the summer annuals in New York is as a greenchop forage. In fact, about 85 percent of the acreage is used in this manner. Under favorable growing conditions, most varieties can be cut within six to eight weeks after planting. At this time the plants will reach between 36 to 40 inches in height . . . the stage recommended for green chopping.

Cutting the first crop in a young, tender stage reduces total yield for the year but improves quality. Early harvest allows more time for regrowth and in certain areas some varieties may be cut three times. Generally, no more than two harvests are possible in many parts of New York.

The summer annuals can be used for silage, but they should never be substituted for corn. As a silage crop, corn produces more total digestible nutrients and usually contains less water at the time of ensiling. The hybrids and the forage sorghums should not be planted along with corn for silage . . . the mixture is inferior to corn alone.

If they are used alone for silage, the crop should be left until the heads reach full flower, or preferably early dough, before cutting. Wilting may be needed to reduce silo drainage because of the high plant water content.

Very little hay is made from the summer annuals in New York. Piper sudangrass is best suited for this purpose; those hybrids with small stems which dry out rapidly could be used. To speed up curing, freshly-cut material should be conditioned more than once.

Only a small percentage of the

acreage is pastured. Grazing is the least efficient method of use because of waste by trampling and incomplete clean-up of stems. Plants should reach 18 to 24 inches growth before turning animals onto a field, and rotational or strip grazing is highly recommended. After the animals are removed, the old stems should be cut to allow more rapid and uniform recovery.

It is best to wait until the soil warms up in the spring before

Classification of Sudangrass, Forage Sorghums and Hybrids			
Type	Varieties	Days to Maturity	
1. Open-pollinated sudangrass	Piper	60-65	
2. Sudangrass hybrids	Trudan I and II	65-70	
3. Sorghum-sudangrass hybrids	Excel Chowmaker, Grazer A, Grazermaster, Greenlan, Haygrazer, Hidan 37 & 38, Lindsey Funk 77F, Mor-Su, Pioneer 985, Sordan, Su-1, SuChow 34 & 35, Sudax SX5 & SX-11, Sweet Sioux	80-95	
4. Forage sorghum and sorghum hybrids	Black Amber, Dairy D, SiChow I & II	90-100+	

planting the annual forage crops . . . early to mid-June in most parts of New York . . . and after corn is in the ground. Earlier planting is

of no benefit because the soil is too cold for good seed germination and plant emergence. Seedlings grow slowly when nights are cool.



(Someone has!)

In new Morton 8.4 or 6.0 Vitamin-Mineral Mixtures. Here are the facts:

- Every pound of Morton 8.4 Vitamin-Mineral Mixture contains guaranteed levels of 160,000 units of stable vitamin A, and 32,000 units of Vitamin D₃.
- The 6.0 mixture, which is usually fed in smaller quantities, contains guaranteed levels of 213,328 units of stable Vitamin A, and 42,656 units of Vitamin D₃, per pound.
- Stability of vitamins is maintained through an exclusive waterproofing process developed

especially by Morton Salt Company. This assures you that the vitamins you pay for are actually in the mixture. (See photo at right).

- Morton Vitamin-Mineral Mixtures also contain calcium, phosphorus, salt, and six vital trace elements in a balanced nutritional relationship to enhance feed conversion and weight gain.

- In Morton Vitamin-Mineral Mixtures, each ingredient is uniformly distributed throughout the mixture in amounts guaranteed on the label, thus providing built-in

Both hot night and day temperatures are needed for rapid plant development.

Seeds of these annuals are usually sown in close drills . . . an ordinary grain drill . . . and should be placed 1 to 1 1/2 inches deep in a well-prepared, firm seedbed. The more common sowing rate is 35 pounds per acre. Row seedings may be used, separating them about 28 to 36 inches apart, but this is not generally practiced in the Northeast. The seeding rate can be reduced by one-half or more if row plantings are made.

A complete mixed fertilizer is required and a soil test is the most accurate guide as to the quantity needed. As a general suggestion and on soils of medium fertility,

10 tons of manure should be plowed down, followed by 300 to 400 pounds per acre of a 10-10-10 prior to planting. Where manure is not used, 400 to 500 pounds of a 20-10-10 should be plowed down.

Heavy rates of fertilizer placed near or mixed with the seed can cause damage to the seeding roots and impair plant growth. No more than 150 to 200 pounds per acre of the fertilizer should be drilled at planting. Use of additional nitrogen after the first harvest does not increase yields enough to justify the cost.

Weeds offer severe competition during the time of early plant growth and, unless some control measure is used, may reduce yields

as much as 50 percent. A chemical treatment, using 1/2 to 1.0 pint of 2,4-D in 15 gallons of water, is usually effective. Application should be made when the weeds are seedlings. In hot, dry weather, the crop plants may be stunted by the chemical and should not be grazed or otherwise utilized until they have grown at least one foot.

Under favorable conditions, regrowth after cutting resembles the varietal development during the period prior to the first harvest. Aftermath yields of some varieties may reach 2.0 tons in the second cut, and here the hybrids usually outperform Piper. Many plants of some of the forage sorghums and true forage sorghum hybrids die after the first cutting.

Production of the various summer annuals at the silage stage may be altogether different from the yields obtained under a greenchop system. Under conditions of uniform plant density, yield is closely related to stem diameter and stalk height. These two plant characteristics vary widely for the types and especially among varieties within the sorghum-sudan-grass hybrids. In general, the sorghum-sudan-grass hybrids have produced 20 to 30 percent more tonnage under silage management than hybrid sudangrass and from 50 to 75 percent more than Piper sudangrass.

Dry Matter

Water content of forage is related to the stage of growth . . . generally high in young, immature plants and decreasing as plants become older. When plants are well developed and become stemmy the juiciness (or pithiness) of the stalk influences the percentage of dry matter.

Leafy plants in a luxuriant stage of growth contain from 85 to 90 percent water when they measure 36 to 45 inches in height. In this stage of growth they are highly succulent, exceptionally nutritious, and digestibility may be as high as 65 percent. Actual animal intake of dry matter will be low so that greenchop forage must be supplemented.

When cut at the silage stage of growth (late flowering to dough) most varieties have 75 percent or less water. Considerable variation may be found, however, depending on the number of stems which develop a seed head.

Prussic Acid

Sorghum, sudangrass and their hybrids contain a glucoside which breaks down to release the poison known as prussic acid. This is another name for hydrocyanic acid, commonly designated as HCN. Piper sudangrass shows the lowest amount . . . about 200 parts per million at 5 weeks of growth after planting but less than 50 parts per million two weeks later. Neither of these quantities is enough to be dangerous.

The true sudangrass hybrids contain just slightly more than Piper but still below the cautious amount. Sorghum-sudan-grass hybrids have varying amounts and in the early stage of growth hold enough to cause animal poisoning. Black Amber forage sorghum has the highest amount at all stages of development . . . up to 1200 parts per million at 5 weeks growth and 450 PPM at 7 weeks growth after planting.

Piper sudangrass and the true sudangrass hybrids are safe for use when the plants reach 18 inches, but the sorghum-sudan-grass hybrid and forage sorghum should be 2 to 2 1/2 feet high. Under a greenchop system of utilization or for silage there is no danger from poisoning unless the crop is frosted. In frozen material the prussic acid is quickly released but dissipates as soon as the plants dry out. A completely-dry frosted crop is safe.

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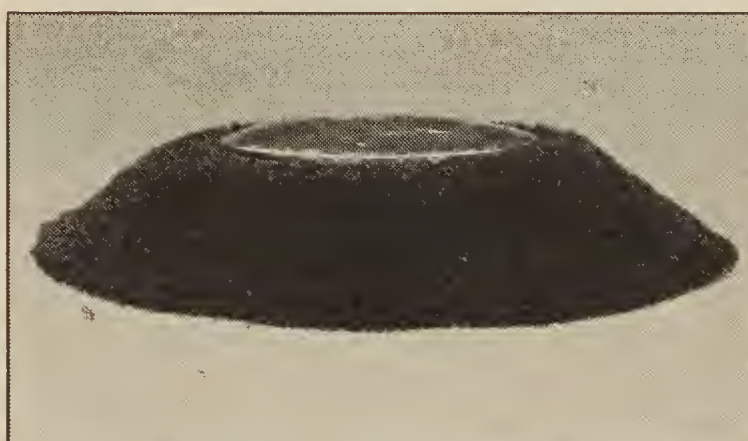
● Morton's two levels of phosphorus—8.4% and 6.0%—are formulated to provide phosphorus at different supplemental levels in relation to the animal's normal requirement for salt and other nutrients, each in a balanced calcium-phosphorus ratio of 1.78 to 1.

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4-H ACHIEVEMENT WINNERS

Most young people are not feather-headed beatnik type . . . but clear-eyed movers toward a constructive contribution to society. We're always proud to present achievements like those of the New York young people listed here:

Mike Trowbridge, Corfu, was selected as the over-all beef champion for 1965 . . . as well as Angus Achievement Winner. He has a herd of 10 registered Angus, and is fitting and feeding 12 Angus steers.

Lisa Cresci, Dover Plains, is the Hereford Achievement Winner. In four out of the five years of 4-H

membership Lisa has exhibited the champion Hereford steer in her county, and at the Eastern States Exposition at Springfield, Massachusetts. Her showmanship ability and judging have also brought her honors.

Donald R. McAvoy, Jr., Barker, has consistently been selected as one of the top swine project members in Niagara County. He owns 55 hogs, 35 of which are of his own breeding. In addition to his hog project, he has planted 3,000 trees, and worked on gardening, crafts, flowers, trees, woodworking and sewing. Each year he assumes

a greater responsibility on his parents' farm as a result of what he has learned in 4-H.

Charles Fitzpatrick, Wayland, is Sheep Achievement Champion. Although a member of a large family, all active in 4-H . . . which has limited the number of animals that may be kept by individual family members . . . Charles has developed one of the finest herds of registered Hampshires in the State. He consistently wins top honors at the State Exposition and at the Western New York Meat Animal Show and Sale.

Robert Acomb, Stafford, was selected 1965 Appaloosa Achievement Champion and New York State 4-H Achievement Champion with a horse project. With primary

interests in horses, Bob has successfully completed also projects in dairy, tractor maintenance and foods.

Bonnie Mather, Marcellus, is New York State Pony Achievement Champion. Now a freshman at the State University College of Brockport, Bonnie held every major office in her club at least three times. In addition to her horse project activities with registered Morgans, Welch and Shetland ponies, she has carried projects in cattle, sheep, handyman, first aid and cooking, and is a master showman.

Terry Foreman, Middleport,
(Continued on page 33)



Mike Trowbridge



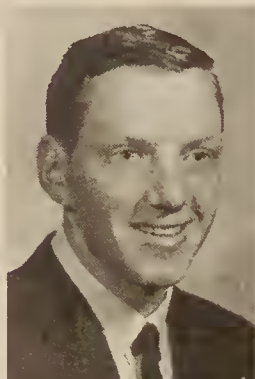
Lisa Cresci



Donald McAvoy



Charles Fitzpatrick



Robert Acomb



Bonnie Mather



Terry Foreman



Marjorie Makaraen



Susan Graves

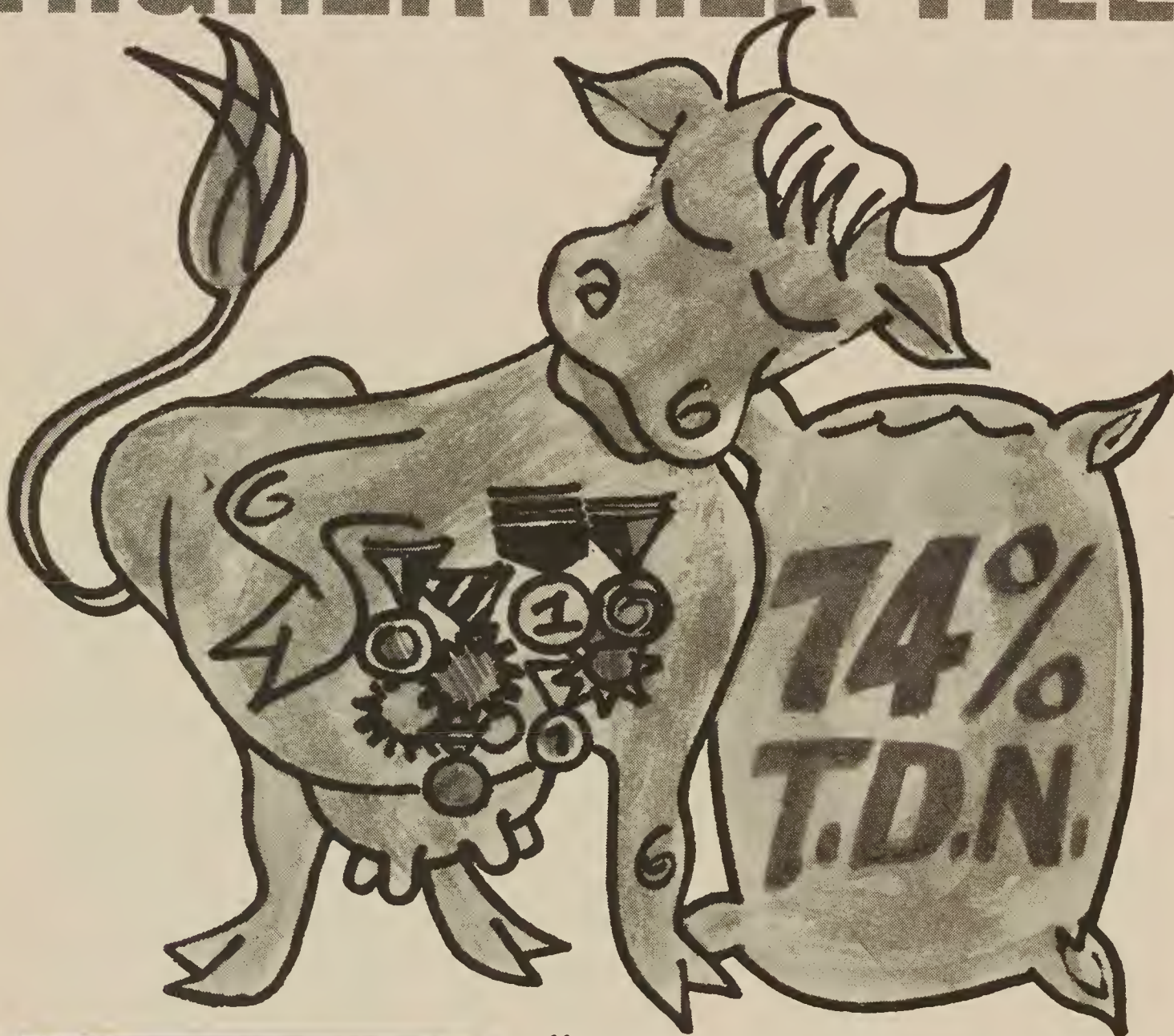


Elaine Nelson



Martha Gibbs

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To increase milk yield, as well as maintain body weight and promote growth, it is important to feed sufficient digestible nutrients, proteins, vitamins and minerals. With digestible nutrients constituting a vital part of the feeding program, it is important to find a feed which supplies digestible nutrients at the least cost. This is where Florida Citrus Pulp becomes your best buy. It is not only high in T.D.N. (74%) but is also one of the lower-cost feeds when prices are checked over a period of time, and particularly when checked as to cost per 100 pounds of T.D.N. So, to get your cows started on their way to higher milk production, contact your feed dealer for Florida Citrus Pulp... "the best of feed, for the best of breed".

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CHRISTMAS TREE ASSOCIATIONS

NEARLY eight million Christmas trees are imported in the United States annually . . . mostly from Canada. It is estimated that 45 million trees are consumed in the country over the Christmas season. New York State's share of this market is growing each year.

Just a few years ago the New York State Christmas Tree Growers' Association was successful in establishing an exhibit of their product at the New York State Exposition. A popular exhibit, consumers as well as retailers have profited by learning to distinguish quality trees.

The industry is competitive, but it is also cooperative. Sincere growers interested in the production of highest quality trees have joined forces. New York State has one of the largest associations of Christmas tree growers in the country. During the summer of 1964, the New York State Christmas Tree Growers Association was host to the National Christmas Tree Growers Association at Cornell University.

Cornell University has been popular with the growers for another reason. Each year the Extension Service of the New York State College of Agriculture at Cornell sponsors, in cooperation with the NYSCTGA, a Christmas Tree Growers School. This year's school on March 4 and 5 included presentations on buying habits, species selection, problems unique to individual species, marketing matters, landscape techniques, plastic wrapping, production cost analysis, and grower association relationships.

A Christmas tree plantation can

be an interesting operation for persons of all ages.

Membership is open to anyone who is interested. Contact Robert J. Ullery, 4 Abedar Lane, Latham, New York, 12110 for information.

Here are the names and addresses of Christmas Tree associations in other states:

Connecticut Christmas Tree Growers Association,
15 Lewis Street, Hartford, Conn.

Maine Christmas Tree Assoc.,
c/o Professor Lewis P. Bissell
Cooperative Extension Service
University of Maine
Orono, Maine 04473

Massachusetts Christmas Tree Association
College of Agriculture
University of Massachusetts
Amherst, Mass.

Secy: Professor John H. Noyes

New Hampshire-Vermont Christmas Tree Growers Association
West Stewartown, N.H.
Secy: Mr. Lewis Day

New Jersey Farm Forestry and Christmas Tree Growers' Association,

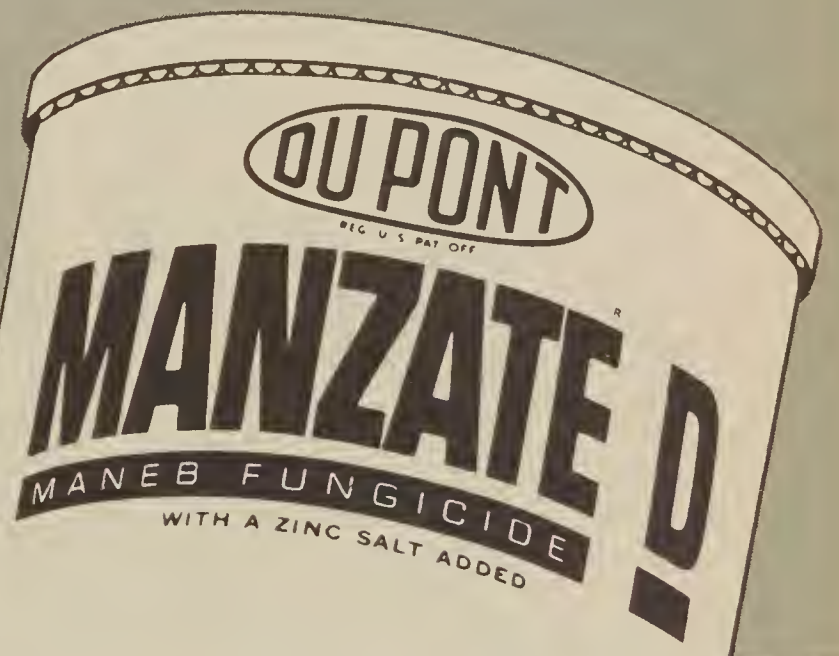
c/o Professor Austin N. Lentz
College of Agriculture and Environmental Science
Rutgers University,
New Brunswick, N.J.

Pennsylvania Christmas Tree Growers' Association
2017 Walnut Street
Philadelphia, Pa. 19103

Rhode Island Christmas Tree Growers' Association
c/o Mr. Harry Lewis, Jr., President
2400 South County Trail
East Greenwich, R.I.

Vermont Christmas Tree Association. President, Fay Young, Jr., Sutton Road, R.F.D. 2, Lyndonville, Vermont 05851.

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for positive
disease control on
potatoes, tomatoes
and other vegetables

NEW TREE WRAPPER

Christmas tree growers are showing a great deal of interest in a new plastic netting for packaging Christmas trees. It is called Vexar, and is made by the DuPont Corporation.

Lewis P. Bissell, secretary of the Maine Christmas Tree Association, reports that packaging with Vexar is much faster than the usual method of using twine. He further reports that the Bemis Bag Company is considering the nationwide marketing of the netting.



Robert Schultz, past president of the Maine Christmas Tree Association, uses Vexar netting.

American Agriculturist, May, 1966

You're always *right*

when you rely on Du Pont "Manzate" D because it:

- ☐ Gives positive protection against a wide range of diseases.
- ☐ Protects crops through rainy and humid infection periods.
- ☐ May be used with many of the commonly-used pesticides.
- ☐ Won't damage plants when applied at short intervals according to directions.
- ☐ Won't clog spray nozzles or corrode equipment.
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LIVESTOCK



Painless Branding — A USDA scientist has developed a method of freeze branding animals that is painless, causes less damage to hides, and makes the brand easy to spot at long distances. Dr. R. Keith Farrell, working with scientists at Washington State University, has successfully tested the new branding system on a variety of animals... even fish and birds. The most economical technique is a 30-second application of a brand made of copper, which is chilled

in dry-ice-alcohol bath to 158 degrees below zero F.

Internal Parasites of Sheep — A series of field trials under commercial flock conditions have been conducted at the West Virginia Agricultural Experiment Station. The trials were to determine the effectiveness of a new drug, thiabendazole, in controlling internal parasites of sheep, as compared with phenothiazine, copper sulfate and nicotine sulfate.

Under conditions in which flocks were heavily parasitized, thiabendazole was the most effective of the different materials studied; where infection in lambs was low and parasites not a major problem,

any of the materials used were effective.

It was found that in some instances parasite resistance had built up to phenothiazine, but there was no indication during the trials of resistance to thiabendazole... and no signs of toxicity. The most practical and effective dosage level of thiabendazole was found to be about 50 mg. per kilogram of body weight... that is, 2.28 grams per 100 pound sheep.

Three Lamb Crops — Experiments at the University of Virginia have shown that a ewe can produce lambs every eight months instead of at the usual twelve-month period. In this way, also, the ewe's

milk production would be better utilized, because high milk production continues only until four weeks after lambing, then declines to practically nothing.

Under the Virginia research program the lambs were weaned in 32 to 40 days, and marketed at less than 150 days of age at an average market weight of 100 pounds. The daily gain was always better than two-thirds of a pound per day, and the lambs used 3½ pounds of grain and hay per pound of gain.

Traditionally the thought is that sheep will breed and conceive only in the fall. But certain breeds... Dorset, Rambouillet, Merino, Tunis and crosses of these... usually will breed in spring or warmer months. A suggested program is: one group of ewes bred in September and lamb the following February. These same ewes would be bred again in May of the following year, and have their lambs in October. Then they would be bred again in January, with lambs coming in June — a third lambing in less than two years.

Another suggestion is to breed part of the flock in January to lamb in June; then breed again in September with lambs coming in February of the next year. They would be bred again in May with their lambs coming in October. Under this system, a flock would have lambs coming February, June and October of every year, thus leveling out the breeding and marketing program.

Dates to Remember

May 11-13 - American Feed Manufacturers Association, Inc. Conrad Hilton Hotel, Chicago, Ill.

May 13-14 - 41st Annual Convention New York Association of FFA, Royalton-Hartland Central School, Middleport, N.Y.

May 13-15 - Fire Police Seminar and College, Watkins Glen, N.Y.

May 21 - New England Angus Association Farmers Spring Sale, Brandon, Vermont.

May 21-22 - New York Flying Farmers Annual Meeting, Trinkins Manor Motor Lodge, Utica, N.Y.

May 22-24 - Annual Meeting and Convention, New York State Milk Distributors, Inc., Sheraton Hotel, Rochester, N.Y.

June 11 - Buck Show, Garden State Dairy Goat Association, Round House, Rutgers University, New Brunswick, N.J.

June 12 - New York Flying Farmers Picnic, Old Fort Farm Airport, Livonia, N.Y.

June 12-15 - Neppco Egg Marketing School, Rutgers University, New Brunswick, N.J.

June 16-18 - National Chicken Cooking Contest and annual Delmarva Chicken Festival, Pocomoke City, Md.

June 16-18 - National Apple Institute Annual Meeting, Park Plaza Motor Inn, Traverse City, Mich.

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SV66-IR

SPUD COUNTRY

We grow 200 acres of potatoes in the famous potato country near Gainesville in Wyoming County, New York. Part of the crop goes for certified seed, the rest for chips.

Our major variety is Russet Rural, but we do grow some Katahdins and Kennebecs. The Russet's main advantage is that it can be reconditioned so it chips well... although a few chippers won't use it under any circumstances.

Our storage has an oil furnace and hot water heat, with a forced-air ventilating system. We store in bulk; in '66 we hope to ship all bulk instead of in bags.

Normally, all our plowing is done in the spring; usually this means turning under a cover crop. The amount depending on a soil test, some fertilizer goes under then... a typical amount would be 500 to 600 pounds per acre of 6-12-12 that contains added magnesium. We usually stick to conventional ratios (1-2-2, 1-1-1, etc.) on fertilizer, but magnesium is added to all of it.

The Russet is tolerant of a higher pH than most varieties, so we go up to a 6 reading. The "K's," though... Katahdins and Kennebecs... are more susceptible to scab, so we try to keep it down to 5.4 where they're grown.

The usual rotation is two years of spuds, then oats seeded with red and ladino clovers. We prefer to leave the hay crop down two years, but sometimes it's plowed up the year after seeding. Rye is sowed in the fall as a cover crop after digging potatoes.

Again depending on soil test figures for amount and analysis, fertilizer goes on with the planter at around 1500 pounds per acre. Half the RR seed is my own, and the other half purchased from growers in Michigan. After cutting seed, captan is dusted on seed pieces to prevent decay.

Most years, we begin planting the 10th of May... the Rural chips better the longer its growing season, but we find that really early-planted fields of this variety tend to have more deformed tubers. Both the Rural and Kennebecs are susceptible to fusarium wilt, and it appears we're getting a buildup of this organism in our soils.

Before plants emerge, we use Premerge as an herbicide at the rate of one gallon per acre in 30 gallons of water... complete coverage. Then we wait as long as we dare before cultivating... usually

cultivate three times a season. The Russet sets its tubers down so it doesn't require much hilling at the last cultivation; Kennebec requires considerably more dirt thrown up to cover tubers set more to the side.

When plants are six inches high, (about July 1), spraying begins... nabam and zinc the basic fungicide. The anchor man of the insecticide line is DDT, but Sevin comes in if leafhoppers or flea beetles show DDT resistance. Thiodan cleans up aphids that build up later in the season.

Our sprayer is an air-blast, covering 22 rows at a time... 10 left, 10 right, 2 under the machine.

Winds don't help any, so we try to spray early in the morning or late in the evening. With this sprayer, we use only one-third as much as we once did with a boom rig. We can do 10 acres now with one load of water. It has cut our spraying time in half.

After blossoming, when tubers are about the size of golf balls, we go in on all acreages to be chipped with a spray of MH-30 (maleic hydrazide). This material has to be on the plants at least 24 hours without rain to be effective in preventing sprouting in storage.

When harvest time arrives, the same air-blast sprayer is used to apply a vine killer... sodium arsenite. We hit 'em twice about 4 to 5 days apart, two quarts of

material at a time per acre. If the weather is warm, two quarts really knocks them down, but it doesn't do much if temperatures are down.

We've been using a two-row digger and hiring migrants to pick up, but we wonder how long they may be available. It's stony in our area, and potato combines can't sort stones from spuds. We do have a stone-picking kit that fits on our digger so we can pick stone with it during the summer and fall. So far, we've gone over 125 acres in the last five years and have picked up as much as nine tons of stone in ten minutes... frankly, we've run out of convenient spots to dump stones!—*Harlan Fisher, Gainesville, New York.*



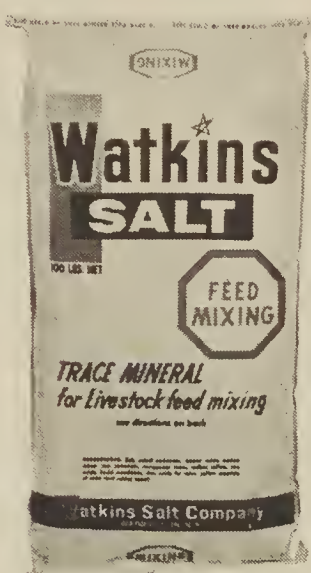
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Trace Mineral FARM and FEED SALT



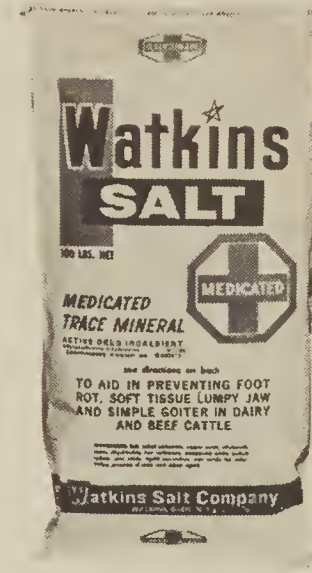
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"Shame on you! At least you could have left the poor man something to complain about!"

American Agriculturist, May, 1966



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• Farm Books •



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HORSES AND HORSEMANSHIP

by M. E. Ensminger

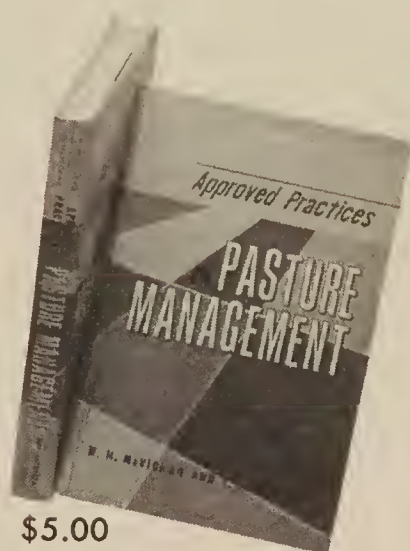
This is the most complete book on the subject that you can obtain anywhere. It has everything you need to know and want to know about the care and training of your horse, and gives a wealth of interesting background and sidelight facts that will make you a better informed horseman. It covers types and classes, breeds, selecting and judging, determining age and height, unsoundness and stable vices, breeding (including genetics and physiology of reproduction), feed-

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GARDEN SPRAYS

Sometimes home gardeners are frustrated because spray recommendations are given in terms useful to commercial growers, but not very handy for a 3-gallon sprayer! Here's a spray dilution chart showing both... amount of pesticide for 100 gallons of water, and how much to use per gallon of water. The materials listed are the ones most often used around home grounds and gardens.

T = level tablespoonful

† = level teaspoonful

3 † = 1 T

2 T = 1 oz.

2 cups = 1 pint = 16 ozs.

16 T = 1 cup = 1/2 pint

CHEMICALS	AMOUNT OF PESTICIDE 100 gal.	1 gal.
-----------	---------------------------------	--------

Insecticides:

(Read label
on package)

DDT 50 %

wettable
powder

2 lbs.

2 T

Malathion

50 %

emulsion 1 1/2 pts.

1 1/2 †

Malathion

25% wet-
table pow-
der

3 lbs.

3 T

Methoxychlor

50% wet-
table pow-
der

2 lbs.

2 T

Fungicides:

(Wettable
spray
powders)

Fixed copper

4 lbs.

2 T

Captan 50 %

3 lbs.

2 T

Ziram 76 %

2 lbs.

2 1/2 T

Maneb 70 %

2 lbs.

2 T

Karathane or

Mildex

1/2 lb.

1 †

BLACK PLASTIC MULCH

FOR VEGETABLES

Scientists at all of the colleges of agriculture agree that the use of black polyethylene mulch on vegetables increases yield potential. It is particularly well suited for tomatoes, summer squash, cucumbers, muskmelons and watermelons. These all benefit from uniform moisture and respond well to high temperatures.

Mulching has been a practice for long years, with hay, straw, sawdust and leaves... but the plastic sheeting not only controls weeds but actually allows the soil to retain moisture and fertilizer better. It traps heat in the soil, keeping the top four to six inches warmer during early growth.

The home gardener can lay the plastic down and cover the edges with soil to keep it sealed and from blowing away. If after the first rainfall the water stands on the plastic, cut an occasional slit and the water will get through.

For YOU

from Purina

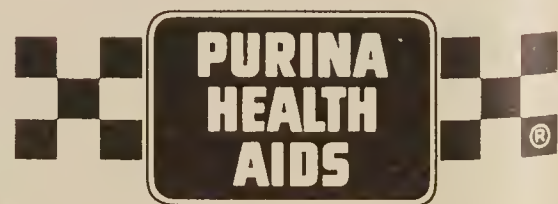
Now you can get this famous "Checkerboard" Pocketknife, made with razor-sharp steel blades by a master American knife maker—a retail value of at least \$2.50—for only 75¢, each time you visit your Purina dealer during May and buy a Purina Health Aid Product.

You really get two premiums—America's most popular three-bladed pocketknife and a top-quality Insecticide, Wormer, Disinfectant or Treatment product. If by any chance you've never tried a Purina Health Aid—take advantage of this unusual offer to stock up NOW on the Health Aid you were going to buy anyway—Cleaner, Disinfectant, Insecticide, Wormer or Treatment product.

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May
\$2.50 value
only
75¢**





FARM DOLLAR GUIDE

MILK PRICES are up all over the Northeast ... blend price for April, May and June in New York-New Jersey area will average \$4.23 ... 47 cents above same months in '65. Massachusetts-Rhode Island has 66 cents higher Class I price in April than in April '65, 44 cents higher in May and June than year ago. Connecticut Class I April-June price 66 cents above same period year ago.

USDA got in box by suspending part of Class I pricing provisions of some federal orders, then terminating suspensions, then amending the orders to provide some price increase. Remember much of increase due to market forces ... in New York-New Jersey, 39 cents of that 47 cents increase April-June would have come about without order change.

Twenty northeastern dairy cooperatives are pressuring USDA for continuation of higher Class I prices beyond June 30.

EGG-TYPE CHICKS hatched have been running ahead of last year from 5 to 24 percent in various regions. Smallest increase has been in Northeast (5% in February).

Northeast egg production dropped 1½% in '65 after four years of expansion. Total U.S. egg production is expected to top 1965 figures for several months.

During February, U.S. turkey poult hatch was up 30% over '65.

IN THE NORTHEAST, where corn follows corn for several years, the northern corn rootworm is causing damage. Corn stalks fall over, stunted plants pull up easily, small white worms eat the roots, and yellowish-green beetles eat the silks. If you see these signs, consult your county agent.

U.S. POTATO GROWERS intend to increase total acreage in '66 by 3.1%, late summer acreage by 2.5%. Biggest proposed increase is in Washington State, with 16%. Light holdings in eastern states this spring have resulted in some recent increases in price.

RESTRICTIONS on sugar imports have been lifted by USDA. Result may be lower prices for central New York beet growers.

NATIONAL EGG MARKETING ORDER isn't given much chance to get Congressional approval this session. Senator Case of New Jersey sponsored proposed legislation.

ALFALFA WEEVIL continues to spread across the Northeast. Labelled spray materials available include Malathion, Methoxychlor, Diazinon, Parathion and Guthion ... and commercial mixes of various combinations of these. Guthion and Parathion are legal to use, but remember they're "hot" to applicators as well as bugs, so treat them with special respect.

STRAWBERRY VARIETIES recommended by Cornell include Catskill, Empire, Jerseybelle and Sparkle. A promising new variety is Vesper, a very late variety, disease-resistant, and a heavy producer.

SARANAC is a relatively new (1963) alfalfa, which is early, fast-growing, and resistant to bacterial wilt. It outyields DuPuits and stands last longer. It is best suited to good alfalfa land.

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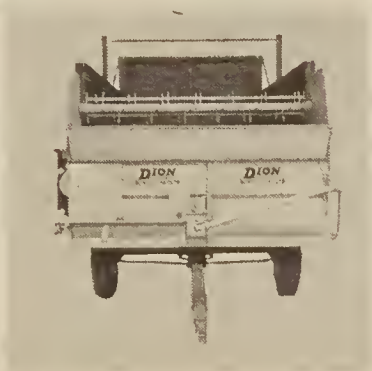
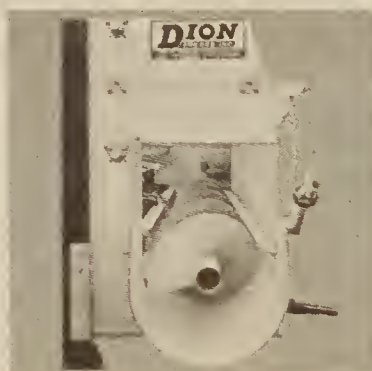
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LOW-COST MILK

by Jerry Webb*

HOW DOES \$25,000 per acre sound as a price tag for farm land? A speaker at the University of Delaware's last Farm and Home Week said his Connecticut farmland will be worth that if he is able to stay in farming long enough.

Louis Longo, a Glastonbury dairy farmer, said urban pressures will move land values in urbanizing areas such as Delaware beyond the imagination. He said he has already been offered \$5,500 per acre for some of his land which only a few years ago was worth one to two thousand.

* Asst. Extension Editor, University of Delaware

In his effort to stay in farming he's counting on two things: a tax system that taxes farmland according to its production capacity, and a system of good business procedures that yield profits.

"As cold as it may seem, I do not farm for the love of cows or the love of the outdoors. It's only from profits that dairy farmers can develop good herds and good farms. It's only from profits that any farmer can take his place in the community and do the civic duties that he has to do. Beggars contribute very little to a community. All business calculations must

be aimed toward this ultimate goal . . . profit."

Longo, who utilizes the services of a farm accountant, talks production costs, profit margins and capital gains like a stock broker. He knows exactly what he pays for units of feed energy and how much milk each unit produces. He keeps a daily invoice on the amount and cost of each item that goes into production. And he knows exactly which items are paying off.

The feeding program of Longo's dairy herd is handled with the same kind of cost accounting procedures. He feeds on a net energy basis. A weekly check is made to determine the energy requirements

of each cow based on her milk output. Each gets a pound of grain for every three pounds of milk produced, plus about 85 pounds of corn silage and enough corn meal to complete the energy requirement.

Longo, who started in the dairy business in 1941, has been a pioneer in free stall housing and single phase roughage feeding. His cows have been on an all-corn silage program for several years. He follows this system for one reason . . . profits. Longo said that with the right fertilizer program a farmer can average 25 to 30 tons of silage per acre. To him this means 36,000 pounds of milk and \$1,900 income per acre.

To produce this amount of silage he applies 1200 pounds of fertilizer per acre, seeds 27,000 plants of a late maturing variety. The cost is \$180 to \$200 per acre. "One hundred acres of corn handled this way will feed 300 cows. At \$600 return per cow above feed costs, you can adjust to urban pressures."

A Challenge

He challenged the Farm and Home Week audience to take a close look at their production per acre, production per man, and capitalization level. He said that with his all-corn-silage system the amount invested in equipment and storage is quite low compared to other methods of production. To prove this he pointed out that his equipment costs to produce roughage in 1964 were actually lower per ton produced than in 1947.

He also said a dairyman cannot afford to spend more than one dollar per ton of capacity for storage facilities; his answer to this is bunker silos. Asked if these silos weren't cold to work in during the winter he said, "They are cold, but it's real warm in the lobby of the bank, and I plan to spend some time down there, too!"

Predicting future trends in dairying, Longo said dairymen will have to stop complaining about the price of milk which they don't seem to be able to do much about, and concentrate on getting the most return for the capital they invest. "The way to do this is to concentrate your money in productive units." That means efficient use of land, buildings and equipment, as well as top cow production.

He has already pushed this philosophy to the point where two men handle 220 cattle, including 132 milk cows. The milking requires only 12½ man-hours per day. "And," he added, "it breaks my heart to go by my milking parlor in the middle of the day and see it standing idle."

He sees milking parlors, free stall housing and bunker silos as musts for dairymen who plan to stay in business. Following this system, Longo produces milk at a cost of \$1.40 per hundredweight for labor and overhead. In 1947, these items cost \$3.20 a hundredweight. His feed costs are about the same now as in 1947. This has meant that during this 18-year period, his milk profits have actually increased.

American Agriculturist, May, 1966

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Johnson & Johnson
Dairy Department

4-H

(Continued from page 26)

won the award for Quarter Horse Achievement. He, too, has carried many other activities . . . and has been a fierce competitor in the show ring. He won the master showmanship award at the State Exposition.

Marjorie Lee Makarainen, Ithaca, was selected as the achievement champion of the group of 4-H'ers working with unregistered horses. Among other accomplishments, Marjorie is an excellent horse judge . . . she was named high individual at the New York State Exposition 4-H horse judging contest.

Susan Graves, Rexford, was selected 1965 Palomino Achievement Winner. Susan has become an excellent showman, earning many championships, has put on fine demonstrations, and was asked to guess judge a horse show in Cambridge, New York, in 1965. Altogether, Susan has won almost 200 ribbons for her horse show activity.

Elaine Nelson, Cayuga County, leads in achievement with the Morgan horse. Elaine is active in the show ring and in demonstrations, and has consistently been a blue ribbon winner in fitting and showmanship. Her horsemanship ability was demonstrated by her successful completion of the 100-mile Vermont trail ride.

Martha Gibbs, Penn Yan, was chosen 1965 Arabian Horse Achievement Champion. Martha has been a member of her county horse and dairy judging teams, and active in other activities, also. She is now in charge of all training with her parents' horses as well as her own . . . and is even accepting a few outside horses for training. Always ready for a new challenge, she was one of the successful applicants for inclusion in the new 4-H Standardbred Program.

COON CONTROL

Professor S. W. Warren, known to many northeastern farm people for his work in farm management at Cornell University, is also an avid gardener. He found himself in the summer of 1965 fighting a losing battle with Brer coon, that masked rascal who dearly loves to riddle a field of sweet corn on moonlit nights. He finally solved the problem with the help of a trap that "brings 'em back alive."

It is a box trap that is open at both ends . . . an arrangement apparently necessary to reassure a coon so he will enter it at all. He used a sardine as bait . . . a tidbit that apparently this foxy character just can't resist. In the space of three nights, he had caught three coons and he reports that the situation seems to be under control.

If you're interested in knowing more about companies making such traps, drop a line to the Department of Conservation, Cornell University, Ithaca, New York 14850. Or if you want firsthand information, you can contact Stan Warren at 148 Warren Hall, Cornell University.

American Agriculturist, May, 1966



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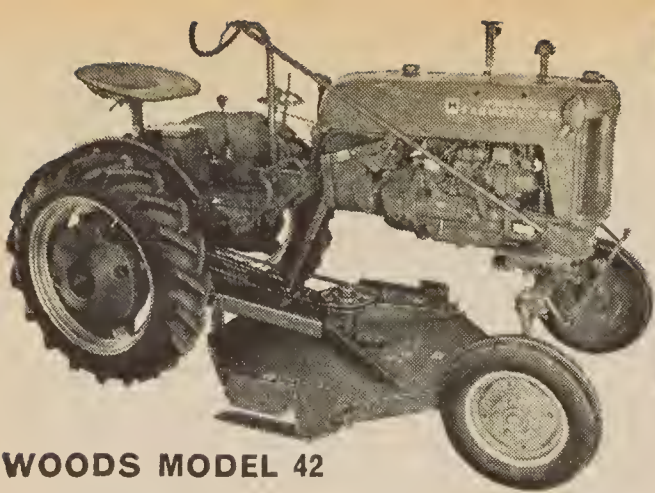
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Food For The Spirit



by Robert Clingan

A LIVING SIGN

Every community aspires to some measure of uniqueness... or even fame. I once lived in a community that prided itself on being the scene of the last Indian raid. My present home town, Canisteo, New York, prides itself on "a living sign." On a hillside above our elementary school the word "Canisteo" is spelled out in Scotch Pine. Some 260 Scotch Pine trees, nine to ten feet in height, make a sign 300 by 90 feet in outside dimensions; each letter is about 30 feet wide and 70 feet long. We have become the community of "The Living Sign."

In a sense, every person may become in his own person a living sign. He may become a sign of faith or a sign of cynicism or unbelief; he may become a sign of hope or of despair; of kindness or hostility; of joy or abiding sorrow. What kind of a sign are you?

As we try to relate ourselves to the perplexing problems of our day, we find people who have found some of life's answers. They have acquired a sense of direction. They do have clues to meaningful activity in a world where so many wise persons are utterly confounded. If the answers and directions and clues are valid and real, and the person who has found them incorporates them into his own life, he has truly become "a living sign."

This is no new insight discovered by modern man. The Apostle Paul recognized it when he wrote in 2nd Corinthians (3:3) these words to the church at Corinth... and to us: "... you show that you are a letter from Christ, delivered by us, written not in ink but with the Spirit of the living God, not on tablets of stone but on tablets of human hearts."

We cannot avoid being a letter someone will read or a living sign someone will see. It is up to each of us to be sure that this letter or sign communicates the best we know, and speaks for our best selves. What are we saying to those who read "our living sign?"

PRAYER OF THE AGED

Some of us are growing gray.
Some are falling by the way.
Most of us still want to stay,
And for this we daily pray.

Long night hours we wait for day,
Hoping we can be more gay.
Old-time friends are far away,
Still our hearts pray, "Let us stay."

Well we know that come what may,
We cannot prolong our day.
When we can no longer stay,
Holy Spirit, lead our way.

— Augusta VanHoesen
E. Northfield, Mass.

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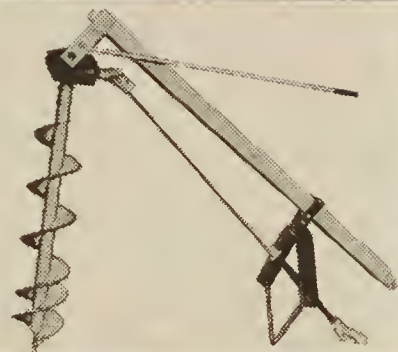
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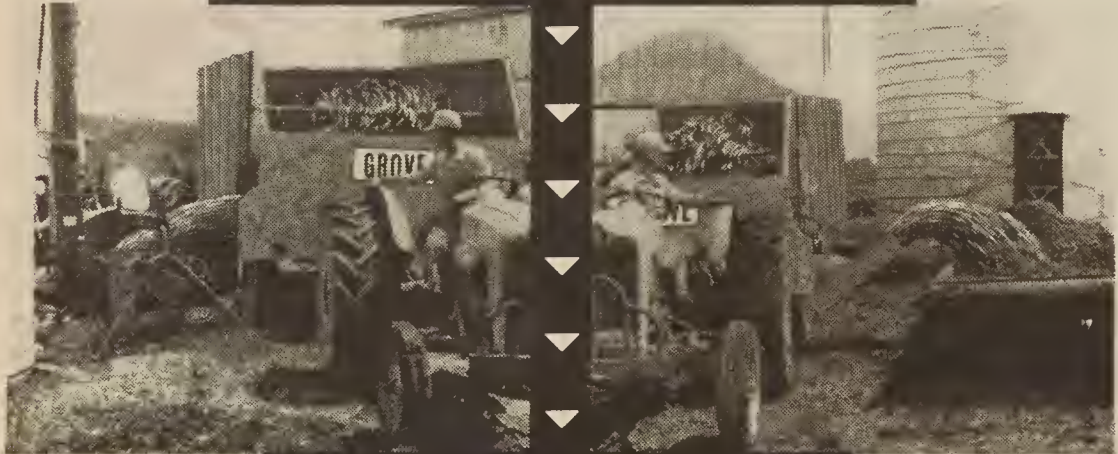


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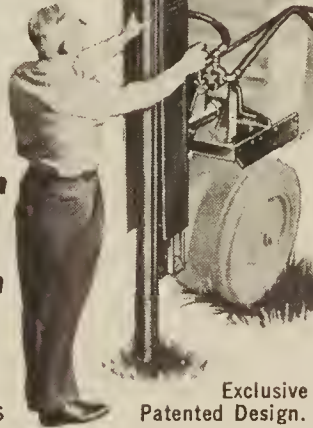
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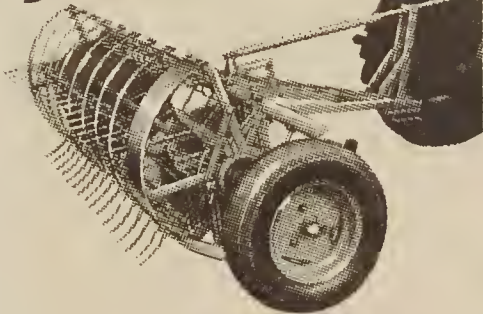
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Preserves Hay Quality!

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CUSTOM RATES FOR 1966

The following custom rates for the Northeast come courtesy of Doane's Agricultural Service, St. Louis, Missouri.

Plowing and Cultivating			
Job	Per	Rate	
Plowing			
moldboard plow	acre	\$	4.60
disk plow	acre		4.20
Disking			
tandem	acre		2.75
offset	acre		3.00
Harrowing			
spike tooth	acre		1.90
spring tooth	acre		2.30
Cultivating			
sweep cultivator	acre		2.00
rotary hoe	acre		1.45
weeder	acre		1.50
Stalk cutter, power take-off	acre		2.80

Planting and Drilling			
Corn planting, with fertilizer	acre		2.90
without fertilizer	acre		2.50
Drilling small grain	acre		2.40
Planting soybeans	acre		2.25
Planting potatoes	acre		4.85
Seeding alfalfa, clover, etc.	acre		2.30

Spraying and Dusting			
Spraying, average cost all, (no materials)	acre		2.00
Spraying weeds with 2,4-D, (including material)	acre		2.75
Spray buildings, insecticide (including material)	hour		7.00
Spray cattle (no material)	head		.40

Hay and Silage Making			
Field chop silage			
chopper and blower with:			
1 man, 2 wagons, 1 tractor	hour		13.00
2 men, 2 wagons, 2 tractors	hour		15.75
2-4 men, trucks, 2 tractors	hour		18.75
Silo filling			
upright	ton		2.75
trench	ton		2.10
into wagons only	hour		9.60
Mowing hay	acre		2.60
SP windrower	acre		3.50
Raking hay	acre		2.00
Crushing or conditioning hay	acre		2.40
Pickup baling, twine	bale		.12
wire	bale		.15
Haul bales to barn and store	bale		.09
Haying, cut, rake, bale, store	bale		.30

Harvesting			
Corn picking	acre		7.50
Corn combining	acre		9.15
Combining			
small grain	acre		6.70
soybeans	acre		6.75
seed crops, alfalfa, etc.	acre		7.00
dry beans, peas	acre		10.00
Crop handling			
dry corn	bushel		.09
shell corn	bushel		.07
Harvesting sugar beets	ton		2.60

Miscellaneous			
Spreading fertilizer (no material)			
bulk dry	acre		1.60
liquid	acre		1.75
sidedressing	acre		2.40
anhydrous ammonia	acre		2.30
mixing feed	cwt.		.18



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...all filter better
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- can't wash or channel
- handles large volumes of milk
- superior strength



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Tue., June 14—starting at 10:00 A.M.

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TWELVE DOZEN DIFFERENT kinds buttons, one dozen each kind, fine quality — various sizes (144) Blue-Brown-Gray-etc.—100 Needle Book plus threader, Postpaid. \$1.25—2 for \$2.25 —3 for \$3.00. Better Products Co., P. O. Box 483, Watertown, N. Y. 13601.

6 MAPLE BUTTERNUT RECIPES \$1.00 old Vermont style. Handwritten on recipe file cards. Box 51, Fairfield, New York.

PAINTING WITH SEEDS. The newest Hobby Craze. Full-size patterns plus instructions, 55¢ each, or five for \$2.00. Rooster, Hen, Fruit, Flower, Peacock, Eagle, Swan, Matador, Oriental Scene, Stallion, Pheasant. Pat's Handicrafts, Box 1414, Bay City, Texas 77414.

RAG RUGS 24x48—\$3.50 postpaid. J. Nagle, 2512 Railroad Ave., Barnesboro, Pa. 15714.

TWO-IN-ONE NECKLACE with matching earrings. Handmade and beautifully fashioned by German artists. Untarnishable. Silver or gold. "Free Details." Leo Castro, AA566, 62 Wiesbaden, 46-5 Washington Strasse, Germany.

WEAVE RUGS—Make Good Profits—No experience necessary! Free Catalog, sample card, and low prices on carpet warp, rug filler, looms, parts, inexpensive beam counter. If you have loom—advise make, weaving width please. Or. Rug Company, Dept. 5664, Lima, Ohio 45802.

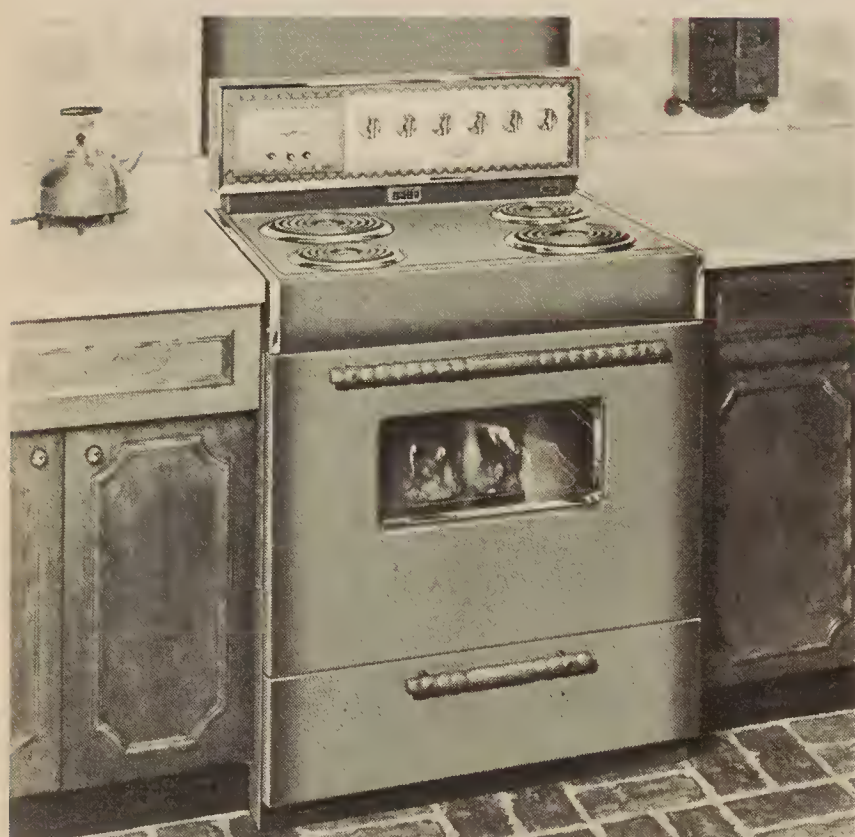
4-H CLUB LEADERS send for Free Home Beautification Program with Holland Flower Bulbs for fun and profit! Dutch Mill Bulb Importers, Dept. #185, Mount Gretna, Pennsylvania 17064.

HANDMADE APRONS, HALFS. 3 for \$2.25, Bib \$1.25, Cobblers \$1.50. Pauline Nash, LaFargeville, New York.

mixed with the violets. Why, even womenfolks themselves are apt to brag 'bout loaded shelves and talk as if each pickled beet was strictly their own private feat.

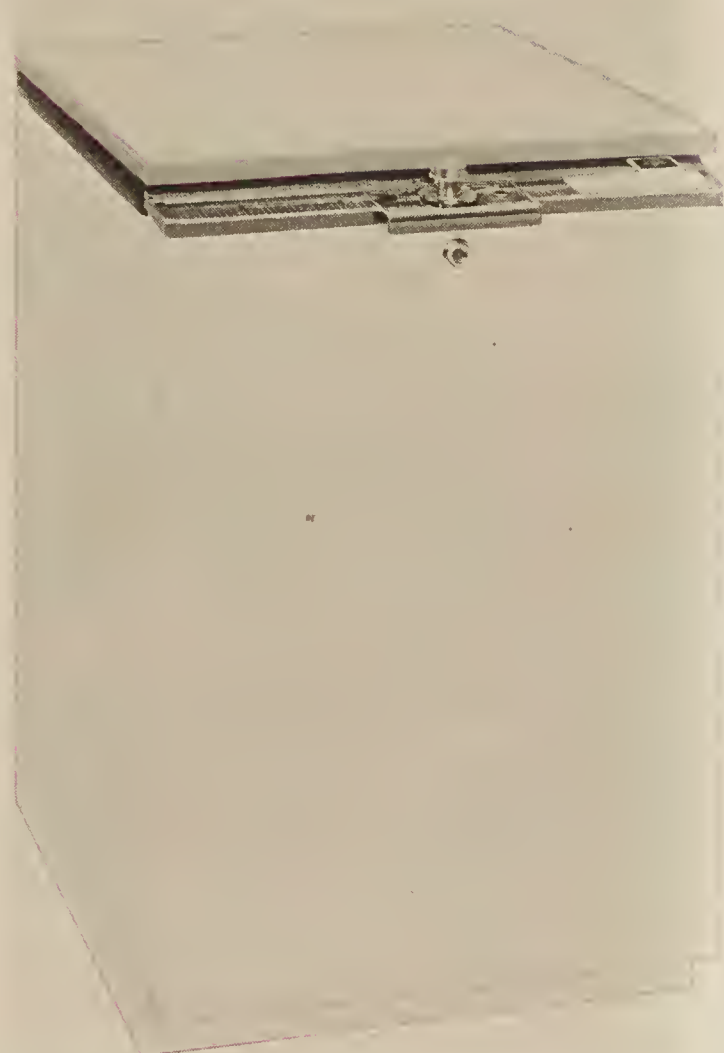
That ain't the way it works with me; as near as I could ever see, the only garden stuff we grew was raised from scratch by you know who. When spring shows up around our place, Mirandy's yelling in my face to get the garden plowing done; she keeps me going on the run 'til I have planted ev'ry seed that she thinks we will ever need. Then when the weeds begin to grow, it's me that has to run the hoe; if anything is picked, by gee, the job is always done by me. Some day I'd like to meet the jerk who says the garden's not my work.

Applesauce Cake Contest



From MONARCH RANGE COMPANY.
"Early American" Electric Range by MONARCH.

From AGWAY, INC.
An automatic Unico Portable Dishwasher.



The Applesauce Cake Contest which American Agriculturist and New York State Grange are jointly sponsoring this year is moving along at a rapid pace! The most exciting part of the contest will come next fall when State Grange meets at Hamburg, New York, and the 53 county champions compete for top honors and the prizes shown on these two pages, plus cash awards.

Everyone is always eager to learn what prizes will be awarded State winners, and we are sure you will be just as thrilled as we are with the ones being offered this year. Our sincere thanks and appreciation go to each and every company participating in the contest and helping to make it a success. Here is the list of prizes!

The top winners will receive one of the following grand prizes:

From Agway, Inc.: An automatic Unico Portable Dishwasher with vinyl coated racks and easy connections to regular sink faucet.

From General Aniline & Film Corporation: A MEMO II single frame 35mm Camera with leather case.

From Monarch Range Company: A 30-inch "Early American" Electric Range in beautiful wood-tone finish.

From National Grange Mutual Insurance Co.: A 3-piece Coffee Service with 15-inch Round Tray of Community silverplate, Park Lane pattern.

From New York State Grange: A Philco Solid State Portable Stereo Phonograph with decorator twin speakers AND a Hoover Dial-A-Matic Vacuum Cleaner with complete Cleaning Tool Set.

From Oneida Ltd.: A 48-piece service of Community Silver (Silver Artistry pattern) complete with chest.

Other prizes are as follows: To the No. 1 and No. 2 State winners: A set of sterling silver salt and pepper shakers from International Salt Company.

To each of the 10 highest State winners, the following prizes:

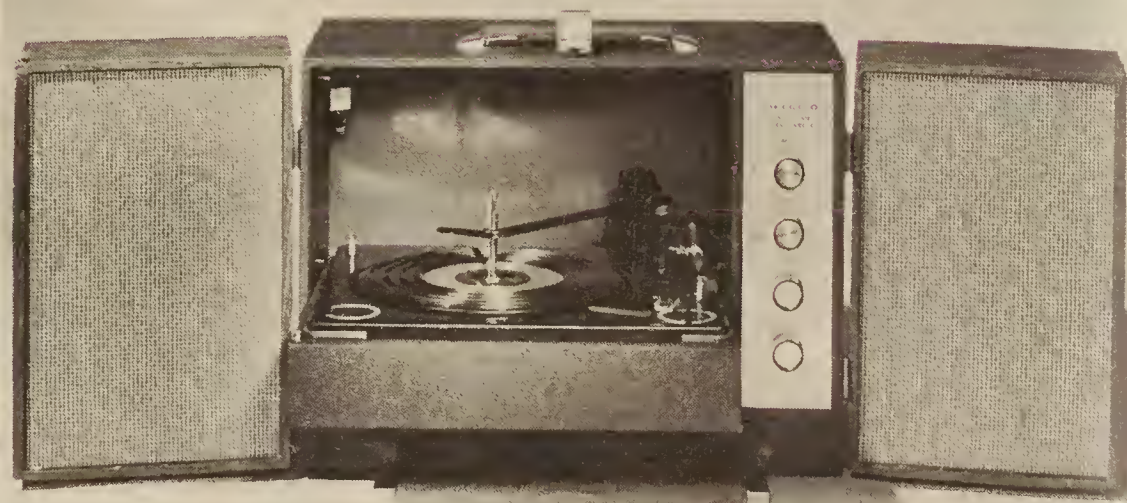
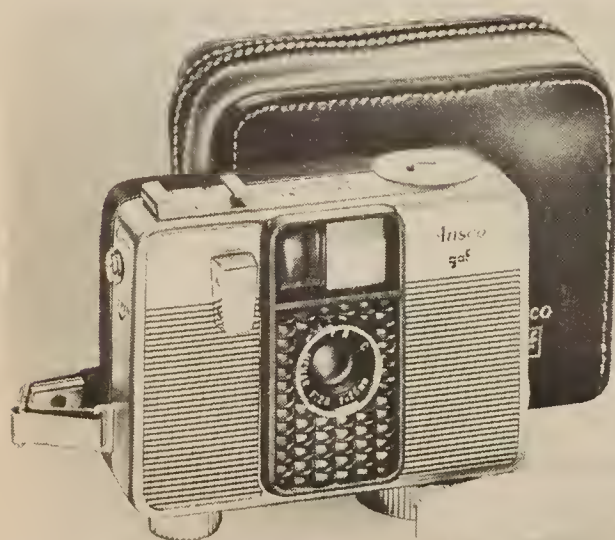
From Dairymen's League Coop. Assn., Inc.: A Cheddar Treasure Chest Dairylea Cheese Assortment.

From International Salt Com-

(Continued on next page)



From GENERAL ANILINE & FILM CORP.
A Memo II 35mm Camera with leather case.



From NEW YORK STATE GRANGE:
Philco Stereo Phonograph.
AND
Hoover Dial-A-Matic Vacuum Cleaner.



From ONEIDA, LTD.
48-piece set of Community Silver with chest.



From NATIONAL MUTUAL INSURANCE CO.
3-pc. Coffee Service with Tray.

Prizes

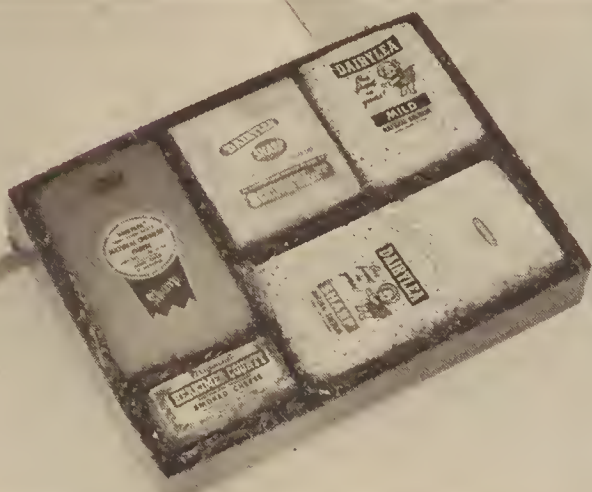


From INTERNATIONAL SALT CO.
To State Winners No. 1 and No. 2:
Sterling Silver Salt and Pepper
Shakers.
To each of the 10 high winners:
6 packages Sterling Salt.



From REVERE COPPER AND BRASS
INC.
To each of the 10 high winners:
1-quart Revere Ware saucepan.

From DAIRYMEN'S
LEAGUE COOP. ASSN.
INC.
To each of the 10 high
winners:
Treasure Chest Dairy-
lea Cheese assortment.



From PENICK & FORD
LTD.
To each of the 10 high
winners:
A complete set of all
the products pictured
below.



pany: 6 packages of Sterling Table
Salt.

From Penick & Ford Limited:
A 24 oz. can Davis Baking Pow-
der; 1 dozen 12 oz. bottles of Brer
Rabbit Green Label Molasses; a
case of My-T-Fine Lemon Pie Fill-
ing; a copy of "Book of Molasses
Magic" and "Easy Does It
Charts," also two sheets of dessert
recipes made with My-T-Fine Pie
Filling.

From Revere Copper and Brass
Inc.: A 1-quart Revere Ware sauce-
pan.

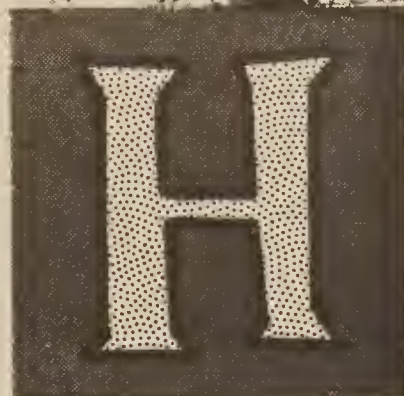
Besides these equipment and
grocery prizes, State winners will
receive the following cash awards:
\$159.00 in entry prizes from
New York State Grange. Each of
the 53 county winners taking part
in the finals will receive a \$3.00
entry prize.

\$107.00 from American Agri-
culturist, to be distributed among
the 15 top winners as follows:
First prize, \$25; second, \$20; third,
\$15; fourth, \$10; fifth, \$8; sixth,
\$6; seventh, \$4; eighth through
tenth, \$3, and \$2 each to the next
five high winners.

Penick & Ford Limited will du-
plicate American Agriculturist cash
prizes to any of the 15 high win-
ners using either Davis Baking
Powder or Brer Rabbit Molasses
in their winning entries. In the
event that both of these products
are used in any of the top 15 prize-
winning recipes, the company will
double their cash awards.

Penick & Ford is also providing
a 12 oz. bottle of Brer Rabbit
Molasses and a copy of "Book of
Molasses Magic" for each county
contest. These will be mailed di-
rectly to the winners as soon as
our list is complete.

This list of county winners will
also be published in American
Agriculturist as soon as we have
all the names.



The beautiful beach at Waikiki offers lots of
fun for all.



Hawaii is known for its agriculture including
such important crops as pineapples.



Famed Diamond Head dominates the expanse
of Waikiki Beach and the yacht harbor at
Honolulu.

TWO American Agriculturist-TSB HAWAIIAN TOURS in 1966

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American Agriculturist -- TSB Hawaii Tour.

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City _____ State _____ Zip _____

PLEASE PRINT

PLANT HARDINESS ZONE MAP

by Nenetzin R. White



APPROXIMATE RANGE OF
AVERAGE ANNUAL MINIMUM
TEMPERATURES FOR EACH ZONE

ZONE 1	BELOW -50° F	
ZONE 2	-50° TO -40°	
ZONE 3	-40° TO -30°	
ZONE 4	-30° TO -20°	
ZONE 5	-20° TO -10°	
ZONE 6	-10° TO 0°	
ZONE 7	0° TO 10°	
ZONE 8	10° TO 20°	
ZONE 9	20° TO 30°	
ZONE 10	30° TO 40°	

(Photo: USDA)

This map shows the minimum temperatures to be expected in most areas of the United States and Canada. These zones have been determined from records of minimum winter temperatures compiled from 1899 through 1952 and published by the U. S. Weather Bureau.

It is very valuable for the average gardener to know these zones, for they show the minimum temperatures to be expected in your area and can prevent the loss of plants that are tender in your locality.

There are other factors that also help to determine hardiness. For instance, some island climates may differ radically, and mountain temperatures are not shown to be as cold as might be expected. This is because most of the weather stations are located in valleys where temperatures tend to be milder and where plants are most likely to be cultivated. Also, temperatures of adjacent zones become increasingly similar near their boundaries.

A large colored reproduction of the Plant Hardiness Zone Map, with the zones divided into more detailed sections, is available for 15 cents by sending your request to Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

Europe the 2nd time.

Now that you've seen the clichés, see the *kanaals* of Bruges. Of Ghent. And have your travel agent send you on from there to the Belgian coast and its gambling casinos. You are only an hour or so from Brussels. But you're already deep in Sabena's brand of Europe. It's the Europe that's better, the second time around.

If you've never flown Sabena, a friendly word of advice: diet before you go. Gourmets say Belgium's food is the world's best. And Sabena serves it. And serves it. To 55 European cities; Africa and the Middle East. One reason native Europeans fly Sabena. Why not go native, your 1st, 2nd, 3rd trip, too?



Sabena.

Europe's most helpful airline.



DO YOU HAVE . . .

Polish recipes for Noodles and Potatoes and Noodles with Eggs? Mr. Raymond Jakabein, 82 Farmill St., Huntington, Conn. 06486 says these Polish recipes are entirely different from all others. His mother used to make these dishes, but failed to write down the recipes.

In last December's "Do You Have . . ." column, there was a request for a "Higdom" recipe. Later that month Mrs. Charles Waldron of Malvern, Pa., sent us a "Higdom" recipe which appeared in the October 1863 issue of *American Agriculturist*! She found the bound volume of our 1863 issues in the attic of a house purchased by Mr. Waldon's great-grandmother that same year.

Recipe measurements and instructions in 1863 were not as accurate or definite as they are today! Here is the recipe as it appeared 103 years ago, complete even to the Editor's note.

HIGDUM

A lady sends to the *Agriculturist* a recipe for a pickle under the above name . . . much liked by her friends.

Take equal amounts of onions, green tomatoes, and of ripe cucumbers from which the seeds and skins are removed. Chop the whole together very fine; sprinkle salt over the mass, let it stand over night, and drain off the fluid thoroughly through a sieve or colander. Pour over the mass and mix well with it hot vinegar, previously boiled with plenty of mustard, cloves, black pepper and red (Cayenne) pepper.

After a few days drain off the vinegar, scald, and return it. Those who relish sweet oil in salads, add this after the final scalding. Some add wine at the same time. (We should think there is quite enough in a mixture like the above without adding the wine. Ed.)

American Agriculturist, May, 1966

The **AA** Clothes Line

8233. A soft collar graces this classic design. In sizes 12½ to 26½, 33 to 47 bust, size 14½, 4 yards of 45".



8233
12½-26½

8383. A three-in-one pattern. Sizes 10 to 20. Bust 31 to 40. Use less than 2 yards for any one version.



8383
10-20

8141. A popular shirt-waist dress for the half-size figure. In sizes 12½ to 26½, bust 33 to 47. Size 14½, 35 bust, short sleeves, 3½ yards 45".



8141
12½-26½



8289
10-20



8206
2-6 yrs.

8206. A love of a dress with its soft-smocking. In sizes 2, 3, 4, 5, 6 years. Size 3, ¾ sleeves, 1⅞ yards of 35".



8285
34-48

8285. A special design to flatter a woman's figure. In sizes 34 to 48, bust 36 to 50. Size 36, 38 bust, jumper, 3½ yards of 54"; blouse 2½ yards of 35".



2951

2951. An attractive hide-away for a toaster or teapot. Nice shower or bazaar gift, directions for smocking.

2943. Cross-stitch strips of embroidery add that 'mondrian-look', to your apron. Hot-iron transfer, sewing and finishing directions.



2943

DRESS PATTERNS are 35c each. NEEDLEWORK PATTERNS are 25c each. Add 10c per pattern for 1st-class mailing. Send orders, with coin, to: AMERICAN AGRICULTURIST, Pattern Dept., Box 220, Radio City Station, New York, N.Y. 10019. Write name, address, zip code, pattern number and size clearly.

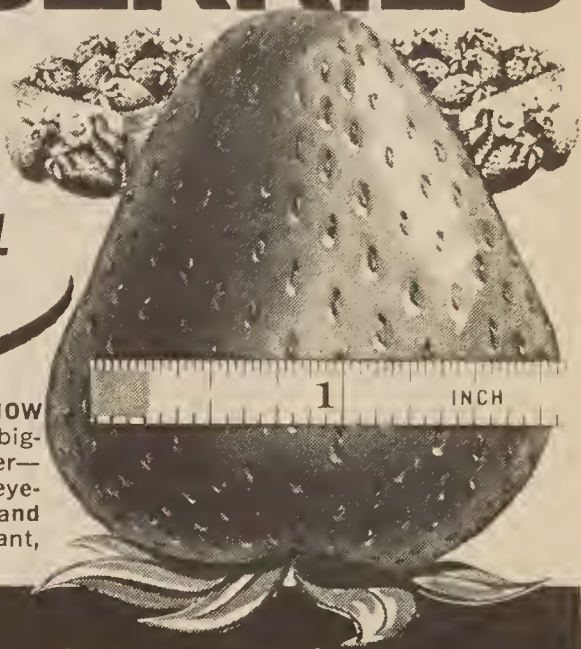
Send 50c more for the latest issue of our pattern magazine Basic FASHION. Every pattern features our exclusive Photo-Guide. Also, our Needlework ALBUM is filled with a wealth of handwork designs. Send 50c for your copy.

GROW Stern's "GENEVA SUGAR BALL" STRAWBERRIES

- UP TO 1½" AND MORE ACROSS!
- 3 ENORMOUS CROPS A YEAR!
- FIRM, SWEET, EXTRA-JUICY, RED!

MUST BEAR PROFUSELY JUNE 'TIL NOVEMBER... OR MONEY BACK!

The greatest new strawberry since 1835! NOW READY—Stern's GENEVA "Sugar Ball," the biggest, rosiest, juiciest, busiest everbearing ever—3 crops a year—Spring, Summer, Fall—eye-filling, luscious strawberries, up to 1½" and more across! Heat-resistant, drought-resistant, disease-resistant. Winter-hardy!



SUPPLY LIMITED! HURRY!
ONLY 12¢ A PLANT IN 1000 LOTS (as long as supply lasts).

FINEST GRADE PLANTS! PICK YOUR FIRST CROP IN 30-60 DAYS! largest, most vigorous No. 1's. Double Guaranteed: (1) If plants fail to bear to your delight, money refunded or full replacement and you keep plants. (2) Same guarantee: if plants do not please upon receipt!

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Stern's Nurseries, Dept. 000, Geneva, N. Y. 14456

Rush my GENEVA Strawberry Plants, guaranteed as stated at left—Cat. #09910 (send check or money order).

<input type="checkbox"/> 6 for \$ 2.00	Name _____
<input type="checkbox"/> 12 for \$ 3.75	Address _____
<input type="checkbox"/> 25 for \$ 6.50	City _____
<input type="checkbox"/> 50 for \$ 12.00	State _____ ZIP _____
<input type="checkbox"/> 100 for \$ 21.00	
<input type="checkbox"/> 250 for \$ 45.00	
<input type="checkbox"/> 500 for \$ 70.00	
<input type="checkbox"/> 1000 for \$120.00	

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N. Y. State residents add 2% Sales Tax.

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Pants only	1.00
Shirts only	.50

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Gabardine-like shirts only	.75
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Heavy twill shirts—Dark colors—14½ to 17	1.25
Lined twill jackets (36-42)	2.89
Add \$.75 for postage, No COD.	
All Sizes. Colors—Tan, Grey, Blue, Green, used, professionally laundered. Satisfaction guaranteed.	

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Sample FREE to Official.

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Established 1915

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New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.





Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name Preparation H®. At all drug counters.

What Is A "Strong" Wind?

Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accom- panied by widespread damage.	

Whatever the wind, do "blow in" to your supplier for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oneida	WMCR	1600 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.
Niagara Falls	WHLD	1270 kc.			

Northeast Radio Network

Ithaca, New York

The A A Clothes Line

4935. Side-dart skimmer, collar and pockets. PRINTED PATTERN in Misses' Sizes 10-20. Size 16: 3 yards 39-inch. 35 cents.

All Printed Patterns

4935 10-20

9428. Sheath has band neckline, bow. PRINTED PATTERN in Half Sizes 12½-22½. Size 16½: 3-5/8 yards 35-inch. 35 cents.

9428
12½-22½

4826. Low waist, swingy skirt. A PRINTED PATTERN in Girls' Sizes 6, 8, 10, 12, 14. Size 10: 2 yards 35-inch. 35 cents.

4826
6-14

SEND FOR
FASHIONS TO SEW
PATTERN PACKED
CATALOG
FOR
1966!

913

9066 14½-24½

913. Smart cardigan is knitted in one piece from neck down, with sleeves and cable trimming. Directions for sizes 32-34; 36-38 in pattern. 25 cents.

9066. Yoked dress with a brief jacket. PRINTED PATTERN in Half Sizes 14½-24½. Size 16½ dress takes 3 yards 35-inch; jacket, 1-3/8. 35 cents.

9028. Slimming dress; note the smart collar. PRINTED PATTERN Half Sizes 12½-22½. Size 16½ takes 3-1/8 yards 39-inch. 35 cents.

9096. Suit plus two shells -- one crocheted. Sizes 10-18. Yardages, crochet directions for shell in PRINTED PATTERN. 35 cents.

829. A stunning centerpiece with pineapple points that sweep beyond circle. Crochet directions for 21-inch doily in No. 50 cotton. 25 cents.

DRESS PATTERNS are 35¢ each. NEEDLEWORK PATTERNS are 25¢ each. Add 10¢ each for 1st-class mailing. Send orders (with coin) to: AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011. Write name, address, pattern size and numbers clearly.

Send 50¢ for Spring-Summer Catalog showing 125 PRINTED PATTERNS -- over 300 design views. COUPON for one FREE PATTERN in Catalog.

See more than 200 designs to order in our Giant 1966 Needlecraft Catalog. Printed in the book are THREE FREE PATTERNS. Send 25¢.

New, DECORATE with NEEDLECRAFT Book--25 complete patterns for decorator accessories shown in 5 room settings. Send 50¢ now.

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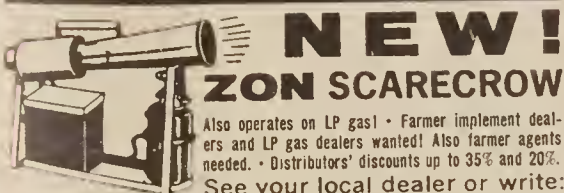
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EXTERIOR PAINT, PERFECT SHAPE,
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Cancellation large Marine order, in five-gallon cans. Price \$7.50 per can f.o.b. Rahway, New Jersey, remittance with order.

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You will like this modern, more effective medication for Sore Teats, Tender Udders. More soothing, more softening, more penetrating to relieve soreness... reduce congestion. \$1 at drug and farm stores, or write

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COME ON ALONG!

Near Juneau, Alaska,
beautiful Mendenhall
Glacier is mirrored in
Auk Lake.



HAVE YOU planned this year's vacation yet? You haven't? Well, what are you waiting for? Why not decide right now to go on one of American Agriculturist's all-expense, escorted tours, for that's the easiest, most pleasant way to travel you can imagine!

And we are offering you a wonderful selection of trips — an exciting Scandinavian Holiday, two cruise-tours to Alaska, your choice of a summer or fall Hawaiian vacation, and a tour of the British Isles. We cordially invite you to join whichever one best fits your plans.

Scandinavia

Our early summer trip to Scandinavia (June 7-28) will feature the Fairy Tale Land of Hans Christian Anderson and "Wonderful, Wonderful Copenhagen" in Denmark and, of course, Sweden and Norway. We'll see Stockholm, one of Europe's most fascinating cities and the delightful rural areas of Sweden. The majestic fjords and snowcapped highlands of Norway are sights we'll never forget, and many will want to go on the popular Midnight Sun Excursion, north of the Arctic Circle.

If you decide this is the trip for you, don't delay another minute in writing for complete information, as you will need to make your reservation very soon. June 7 will be here before you know it!

Alaska Cruise-Tours

June 7 is also the date our first Alaskan tour leaves the Northeast; it returns June 26. On our way to the Pacific Coast, we will visit Jasper Park, Mt. Edith Cavell and the Glacier of the Angel, Columbia Icefield, and the city of Vancouver.

The beautiful Inland Passage cruise aboard the S. S. Prince George includes such a variety of sights and experiences that this is the perfect vacation. Along the way, stops are made at Prince Rupert, Ketchikan, Juneau (with a sightseeing trip to Mendenhall Glacier), and Skagway where we board the narrow gauge railway and follow the "Trail of '98" to Lake Bennet and Carcross.

Our second Alaska vacation is from July 27 to August 14 and will include a visit to Denver and the Colorado Rockies, Salt Lake City, magnificent Mt. Hood and the scenic Columbia River Highway to Portland, Mt. Rainier, and Seattle. The Inland Passage cruise aboard the S.S. Princess Patricia

is almost identical to the one already described.

Hawaiian Vacations

Dates for the two trips to Hawaii are July 29 to August 14 and October, 7-23. Itineraries are the same except the fall tour will take in Aloha Week celebrations.

On the large island of Hawaii, we'll visit Hilo, an orchard nursery, Hawaii National Park, Akaka Falls, the Parker Ranch, Kona, and many other fascinating places.

Some of the things we'll see on the Valley Isle of Maui are Haleakala Crater, "The Needle," and Lahaina, former capital city of the Islands.

On Kauai, the Garden Isle, we'll take excursions on the Wailua River and to Waimea Canyon.

Sightseeing on popular Oahu will include a full day's trip around the island, the Polynesian Cultural Center, a pineapple plantation and the Dole Processing Plant, Schofield Barracks, and a cruise through Pearl Harbor.

British Isles Holiday

Last month we described this trip quite in detail for you. The dates are September 7-28, and autumn is the nicest time to visit this part of Europe. Here's your chance to really see Ireland, Scotland, Wales and England, for we have included the places you've always heard about and wanted to see in each country.

All of these tours are arranged by the Travel Service Bureau of Needham, Mass., and those of you who have traveled with us know this means perfection in every detail. Just mail the coupon today, asking for the itineraries which interest you. You can't go wrong whichever one you choose, and you'll have the time of your life!

Gordon Conklin, Editor
American Agriculturist
Box 370-T
Ithaca, New York 14851

Please send me, without obligation on my part, the following tour itineraries:

Scandinavian Holiday _____

Hawaiian Holidays _____

Alaska Tours _____

British Isles Holiday _____

Name _____

Address _____

(Please print)

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MAY

But not alone the fairest flowers
The merest grass along the roadside
where we pass
Lichen and moss and sturdy weed
Tell of His Love Who sends the dew
The rain and sunshine, too
to nourish one small seed.

Christina Rossetti

MORE WEATHER SIGNS

Following my little story in the last issue about weather signs, letters continue to pour in about the favorite signs in the writers' neighborhoods.

Mrs. Ella F. Mason of Dryden, Maine, sends me a story about some hired men who were sick and tired of working in the hayfield during a long hot summer. A circus was coming to the next town so in the night one of the hired men climbed to the barn roof and tied the weather vane so that it pointed permanently to the southeast.

In the morning the farmer came out and as was his custom cast an eye at the weather vane. "Well, boys," he said, "it is going to rain and we won't cut down any hay until it clears up. So you can go to the circus if you want to!"

Mrs. Mason also says; "If there are many spider webs spread from the tops of the grass on the lawn on a dull morning it will clear off soon, because the fairies are spreading out their clothes today.

And, if the swallows are lined up all along the telephone wires it will rain."

Another friend, complaining about the dry weather last summer wrote: "It was so dry here that the dew was wet only on one side!"

PLANT A TREE

No one who loves a tree can ride through our northeastern countryside without being saddened by the rapid disappearance of many of our nicest trees like the maple and the elm.

In the valley where I grew up, in a southern tier New York county, there was a maple grove on nearly every farm and trees on almost every farmstead. Now they are nearly all gone. I have no doubt that the disappearance of the woods is one reason why we are troubled by long droughts. The trees helped to retain the moisture.

One only has to ride through some of the western states where there are only a few trees to realize how much they add to the beauty of the landscape.

So, in this time of planting why not plant a tree that will add to the happiness of those who will follow you? Or why not give some thought and work to reforesting some part of your farm that will grow nothing else?

TIME TO CALL A HALT

Faced by rapidly-increasing inflation, much of it caused by reckless, foolhardy spending by the federal government, the President is considering increasing the income tax. He has already taken away some tax exemptions granted only about a year ago.

Part of the government expenses are caused, of course, by the war in Viet Nam. Opinion is divided as to whether or not we should have gotten into Viet Nam in the first place, but now that we are committed we must see it through.

But there is one thing for sure, the United States can neither police the whole world nor feed and clothe it, and the more we pour billions into foreign aid, the more enemies we make. So it is about time we called a slowdown in foreign aid to ungrateful and unappreciative countries and their rulers.

But that is not the worst of it. The leaders of both political parties have gone completely crazy, violating all basic principles of economics by grandiose schemes for helping people... many of whom have done nothing in their entire lives to save for a rainy day. The governments, both state

and national, want to give, give, give... not of their own money but of yours and mine. One result of grand schemes like The Great Society is to take the lifetime savings by both taxes and inflation of those who have worked and saved, old people, widows and orphans.

Another equally-bad result of the government spendthrifts is to take the earnings of the comparatively few people between 25 and 65 who must raise and educate their children, support themselves, and pay the rapidly-rising taxes with dollars that have less than half the purchasing power they had only a few years ago.

One of the cleverest and most devilish political schemes ever invented is to buy your vote and mine with our own money.

Frankly, I am just plain scared... not for Belle and myself... but for my children and grandchildren and yours, and for the future of America.

For more than thirty years I have seen coming this situation of bigger and bigger government and more and more inflation and taxes. Time and time again I have writ-

ten and spoken against the violation of economic laws and the basic principles of individual independence, hard work and frugality.

And now I pledge you again that as long as I can ride, walk or crawl to the polls I will vote against every politician of either party in local, state or national government who advocates and votes for any unnecessary project that calls for the expenditure of public money.

LOOK AT WHAT YOU GET

Back in the days before hired men became as extinct as the dodo there was one who asked his mean old boss if he could borrow a horse and buggy to go to see his girl.

"No," said the farmer with emphasis. "All I needed when I was young to go a-courting with was a lantern."

"Yes," said the hired man, "But see what you got!"

This story occurred to me recently when I was urging a farmer friend of mine to grow a garden.

"No time to bother with it," he said. "Besides, I can buy my vegetables cheaper than I can raise them."

I would like to have answered him with what the hired man said. When you buy vegetables out of the market, see what you get! There are scarcely any that compare in quality with the home-grown ones, fresh out of your own garden... and fresh ones certainly add much to your summer meals.

There should be time on every farm for at least a small garden of both vegetables and flowers, so laid out that it can be worked with a minimum of labor. A few old-fashioned flowers like zinnias, nasturtiums, asters, marigolds, snapdragons, and many others can be grown with little work, and they add a bright spot to the homestead and to your lives.

Who can measure the subtle influence in the life of a growing child of a small beautiful flower garden.

What's the use of almost killing yourself off to make a living if you don't do at least a little living as you go along? A vegetable and flower garden is one way to do it. And now is the time to get started.

EASTMAN'S CHESTNUT

Belle has a very dear friend by the name of Mrs. Anne Sweetland. She is somewhat handicapped and not very well, but she is always laughing... and she never comes to visit without bringing one or more good stories. Here is one of her latest, called "The Chinaman's Story!"

I go walkee down crickee
I see kittee
I say scatee
No scatee
Say scatee again
No scatee
I kickee
Phew how stinke
I go crickee
I washee bootee, hatee, coatee
And it stinke like hellee yetee!

American Agriculturist, May, 1966



ED EASTMAN'S PAGE

Her Last Book

Every mail brings letters from enthusiastic readers of Ed Eastman's book, "Journey to Day Before Yesterday."

Because the book brings fun and happiness to so many, both old and young, I know you will like it better than almost any book you have ever read. Here are some of the things that readers say:

"Your book was the last one my mother read before her own life was closed, and she was constantly quoting incidents from it. You have the ability to write as if you were personally talking to your readers. Thank you for your stories and inspiring pages." R.G.

"First I want to say thank you for writing 'Journey to Day Before Yesterday.' I read it all twice... and some parts three or four times. It is one of my treasures." D.F.P.

"I have read many books during my lifetime, but have never before felt the urge to write the author of any of them. But after reading 'Journey to Day Before Yesterday,' I was so moved by memories of my own childhood that I wanted to thank you for bringing them back so vividly. When you described tapping the

maple trees I could close my eyes and see my father as he stood with the brace and bit boring the holes for the spiles. As I read your book, how easy it was to go back and hear my father and mother singing the old hymns as mother pumped away at the old organ." E.L.

"I purchased your book for my Dad's birthday. He's seldom pleased with any of my birthday presents, but this year I really hit the jack-pot. He laughed and chuckled all through the book. I am recommending it to everyone." C.A.

For a birthday present, for Mother's Day or Father's Day, or for reading for yourself I have no hesitancy in recommending Mr. Eastman's book. Because it has pleased so many I know it will please you.

This beautifully-printed, bound and illustrated book will be mailed to you postpaid on receipt of your check or money-order for \$5.95. (New York residents add 12 cents for state tax). Write to American Agriculturist, Department Book, Box 370, Ithaca, New York, 14850. M.E.R.

AA SERVICE BUREAU

TOMPKINS COUNTY TRUST COMPANY ITHACA, NEW YORK		AMERICAN AGRICULTURIST SAVINGS BANK BUILDING - ITHACA, N.Y.		Nº 7032	
		March 23 19 66		50-284 213	
PAY EXACTLY \$25.00		\$ 25.00			
TO THE ORDER OF					
Mrs. Franklin L. Snyder R. D. 3 Bath, New York 14810		AMERICAN AGRICULTURIST, Inc. <i>Audrey Mac Chayne</i> AUTHORIZED SIGNATURE			
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FRAUD REWARD

"Would I be eligible for your \$25.00 reward as a subscriber to your paper?"

"I answered an ad in a paper for making baby bibs at home. They were supposed to furnish all material and buy all the bibs I'd make, but in the end I had to pick a store near home. They wrote to the store and sent me there with a sample I'd made. The material was cheap and the bibs were to sell for \$6.00 a dozen. In other words, the store would be paying 50¢ each for these bibs, and they were not worth it.

"I am enclosing some of the papers and my cancelled check for \$4.00, which was the amount I had invested before I got wise and turned it in to the Better Business Bureau in their town. They in turn took it to their town post office. On July 14, 1964 the post office sent a man to my place to collect all letters and papers and the bibs I had received from the company.

"Yesterday I received a letter from the post office that the man had been sentenced on March 10, 1966. At least we had the satisfaction of doing a good deed for others." — Mrs. Franklin L. Snyder, Bath, N. Y.

According to the letter Mrs. Snyder received from the Post Office Department of Springfield, Missouri, Mr. H. J. Whitaker, operator of various work-at-home companies located at Lake Village, Arkansas, was convicted on charges of mail fraud in Federal Court on February 28, 1966, as a result of numerous complaints concerning his operations. On March 10 he was sentenced to three years' imprisonment on three counts to run concurrently, and to five years' probation on 19 counts to start at the expiration of his imprisonment.

GASOLINE THEFT

The following letter is from Mr. John Kasprzyk, a subscriber from Bliss, New York:

"Late in the fall of 1965 I was informed by Henry Ellis of Pike, New York, that someone was stealing gasoline from the tank on my farm.

"As a result of his warning, I kept watch and caught two thieves

whom I turned over to the Wyoming County sheriff. They were tried, convicted, and sentenced. Without this information from Mr. Ellis I could not have caught the thieves and I think this man deserves your reward. I have a Protective Service sign posted on my farm."

We have been advised by Sheriff Thomas V. Kennedy of Wyoming County that the thieves were sentenced to 180 days in the County Jail at Warsaw for petit larceny. Sheriff Kennedy said, "This is a welcome change of events, that a citizen would assist the police in the apprehension of a criminal, rather than taking the usual attitude of not wanting to become involved, or taking the extreme attitude of shielding the violator."

Acting upon Mr. Kasprzyk's suggestion, we were happy to send our \$25.00 theft reward to Mr. Henry Ellis for the part he played in this arrest.

BURGLARY

A \$25.00 theft reward has been sent to our subscriber, Mrs. Wellman Burch, R.D. 2, Andover, New York.

Mrs. Burch reported to the Andover police that a man had been seen leaving her home while no one was in the house. Within a very short time the man was apprehended by Andover Police Chief Middaugh and State Trooper Lippman, and charged with theft of cash from Mrs. Burch's home.

He waived examination on a third degree burglary charge and was committed to the county jail to await Grand Jury action. He received a four-month jail sentence after pleading guilty to a charge of petit larceny.

ADDRESSES WANTED

Donald C. Tavernia, formerly of Chateaugay, New York.

Descendants of the Wells family, early settlers in Cambridge, New York.

Thomas V. Joiner of Waycross, Georgia, whose last known address was New Smyrna Beach, Florida.

Mrs. Elvin C. Boyd, somewhere in the West.

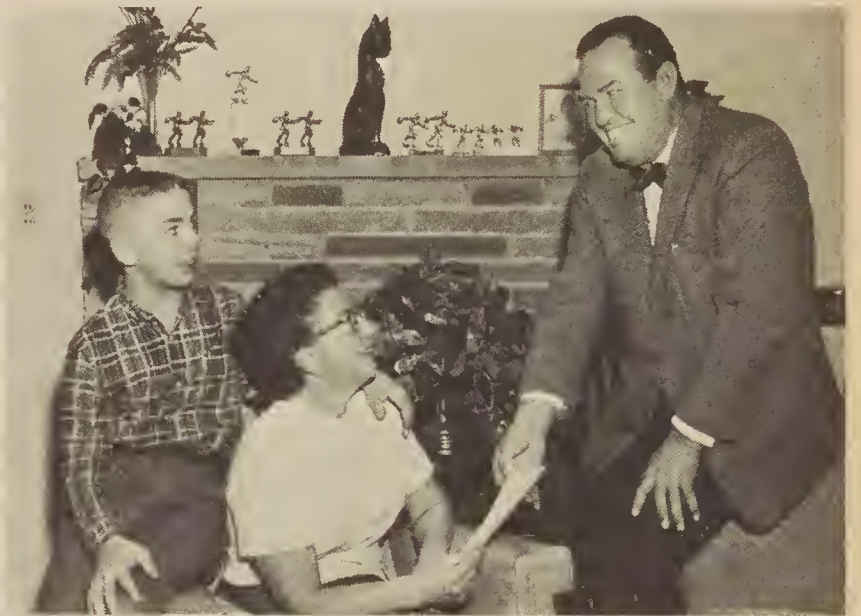
Protect Your Children Too!

Agent Rod Guichard of Randolph, N.Y. for the past fifteen years has helped protect families throughout the Cattaraugus county area. Here are but two of many families to whom he has recently brought North American benefits.



HIT IN FACE BY GOLF CLUB

Mr. Harold Gabel and his daughter Judy, age 15, receives \$992.72 from Mr. Guichard. Judy was learning golf in gym class. A boy in the class teased Judy into using her club. He swung the club and accidentally hit Judy on the side of her face. She suffered a fractured skull and a broken bone beneath her eye. In the hospital 11 days, she underwent surgery to wire the face bone into position in two places.



FELL INTO CAMP FIRE

Mrs. Roy Burger with her 12 year old son Ronald receive \$1247.14. Ronald and a friend were on an overnight camp out. While fixing to prepare breakfast Ronald tripped over a tree root and stumbled into the camp fire. His clothes caught on fire causing severe burns on his whole left side. He was in the hospital 24 days having extensive skin graft operations.

PARTIAL LIST OF BENEFITS PAID

Rozaily Randolph, Cuba, N.Y.	\$ 425.48	Daniel Paddock, Jr., Rushville, N.Y.	\$1,320.00
Slipped—fractured leg		Auto Acc.—fractured facial bones	
Adolf Schaefer, Deposit, N.Y.	208.59	Darwin Ames, Medina, N.Y.	611.84
Caught finger in V belt		Kicked by cow—fract. jaw	
Paul Burhans, Moravia, N.Y.	1,245.06	Harry L. Nicholson, Mexico, N.Y.	678.50
Caught in hay machine—comp. frac. leg		Fell—fractured back	
Lawrence Smith, Ashville, N.Y.	277.85	Dean G. Akins, Lisbon, N.Y.	1,007.25
Hit by heifer—broke rib, injured hand		Kicked by cow—knee injury	
Roger Sterling, Pine City, N.Y.	1,687.25	Vernon R. Hynes, Heuvelton, N.Y.	1,168.21
Fell off gate—severe knee injury		Kicked by cow—internal injuries	
Vina Stratton, Oxford, N.Y.	1,116.43	Stephen Nagyhazi, Schoharie, N.Y.	214.28
Fell—fractured hip		Slipped off truck—injured hand	
Ivon Lobdell, Smyrna, N.Y.	624.96	Andy Nadjadi, Bath, N.Y.	512.45
Fell off tractor—injuries		Pushed by heifer—crushed finger	
Kenneth Guynup, Cadyville, N.Y.	331.05	Menneth G. Snapp, Newark Valley, N.Y.	501.54
Kicked by horse—injuries		Leading bull—injured elbow	
Curtis Parcells, Tully, N.Y.	725.65	Carl Keim, Ludlowville, N.Y.	900.26
Glass door smashed—cut eye		Auto Acc.—broke ribs, cut & bruises	
Earl M. Sanford, Margaretville, N.Y.	231.42	Ralph Bliek, Williamson, N.Y.	1,106.27
Pinned by cow—crushed wrist		Knocked down by pigs—internal injuries	
Herbert Sweet, Chateaugay, N.Y.	522.00	Cary W. Kahl, Warsaw, N.Y.	429.57
Thrown from truck—injured shoulders		Auto Acc.—mouth cut, front teeth broken	
Robert A. Subik, Johnstown, N.Y.	781.50	Alice Clark, Rushville, N.Y.	308.98
Thrown from tractor—severe leg injury		Fell—fract. wrist	
Mark Hunneyman, LeRoy, N.Y.	728.03	Wilbur L. Friends, Millerton, Pa.	1,290.00
Fell from ladder—fract. arm		Caught in beaters of wagon—multiple injuries	
Olive K. LaBrake, Dolgeville, N.Y.	351.34	Chris R. Sanders, Sugar Grove, Pa.	130.40
Burned forearm with hot grease		Sliding into base—injured shoulder	
Ray Hall, Carthage, N.Y.	1,350.00	Stewart Heater, Pittstown, N.J.	716.97
Caught toe in root, fell—fract. spine		Fell off barn—dislocated shoulder	
Ervin Widrick, Mannsville, N.Y.	1,141.23	Richard W. Clough, Vernon, Vt.	310.00
Stepped on by cow—broke arm, inj. thigh		Hit steering wheel of tractor—broke breastbone	
Jerry Yancey, Lowville, N.Y.	1,402.14	Gerald Mayer, Middlebury, Vt.	170.00
Caught hand in pulley belt		Auto Acc.—broke leg, cut & bruises	
Homer L. Wilson, LeRoy, N.Y.	785.96	Ulyse A. Choquette, North Troy, Vt.	120.00
Cleaning corn picker—crushed hand		Slipped and fell—broke leg	
Fred Harris, Eaton, N.Y.	1,239.28	Edward W. Banach, Greenfield, Mass.	482.58
Struck head on beam—inj. back		Crushed between two cars—broke knee	
Ella Starke, Amsterdam, N.Y.	965.03	Clifford Plummer, Sr., S. Windham, Me.	1,000.00
Slipped on waxed floor—injured knee		Bulldozer tipped over on him—burned leg	
Richard Shimer, Lockport, N.Y.	1,035.00	Phedime Blanchette, Fort Kent, Me.	210.00
Playing soft ball—injured knee		Fell—broke shoulder and foot	
Robert Hawley, Warners, N.Y.	1,911.42		
Fell over pail—frac. wrist, injured elbow			

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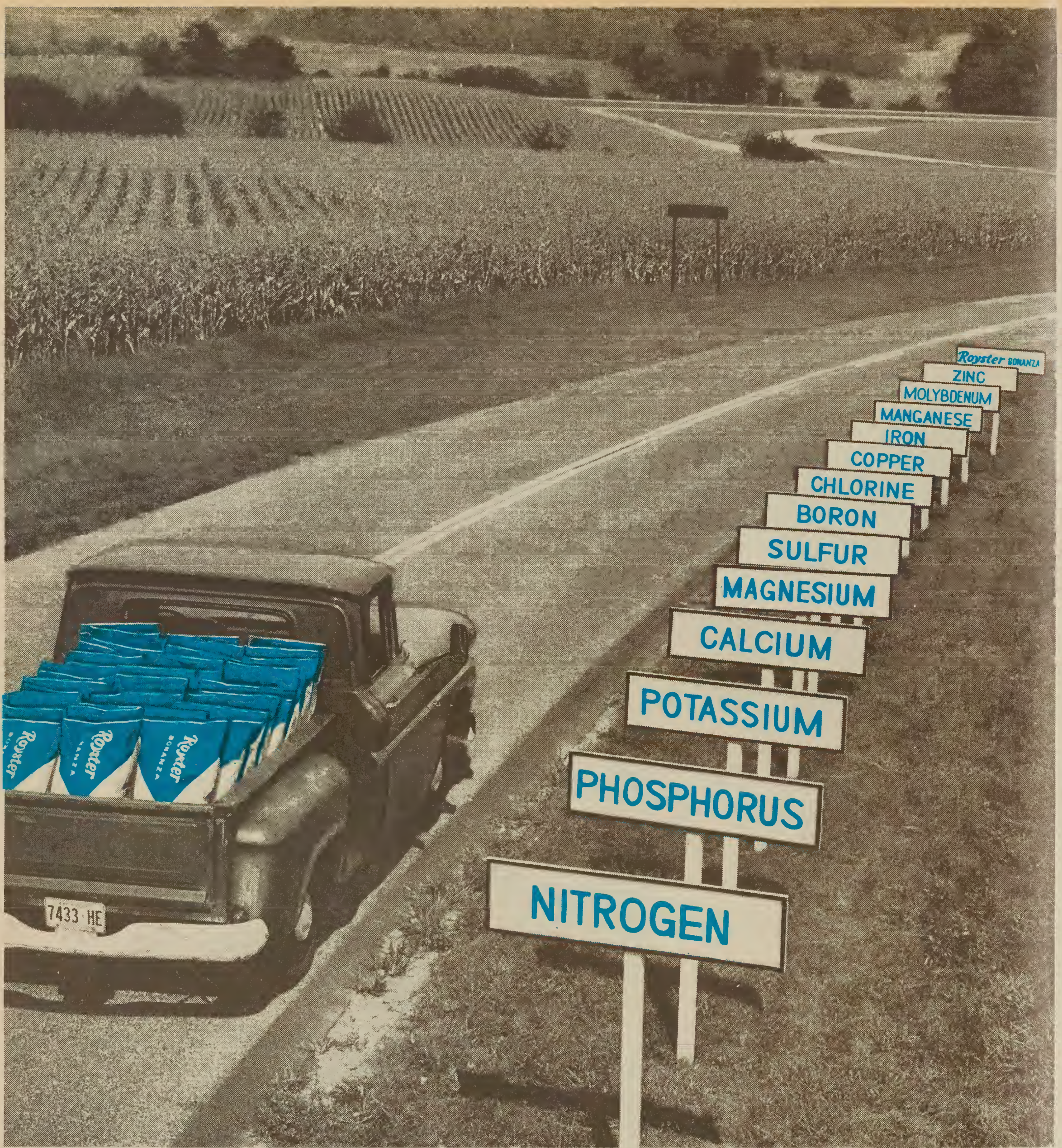
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Send 4-color "Bonanza Facts" booklet to help me spot hunger symptoms in crops.

Name

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JUNE 1966



American Agriculturist
and the

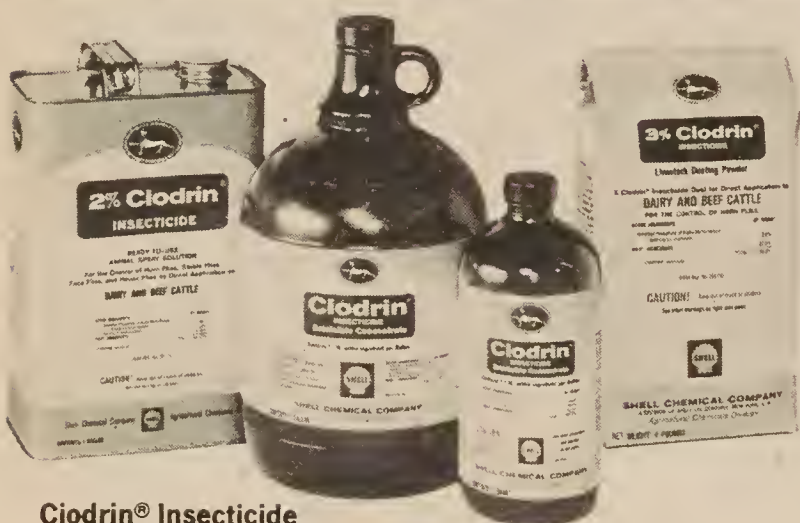
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Shell fly control guide for dairymen

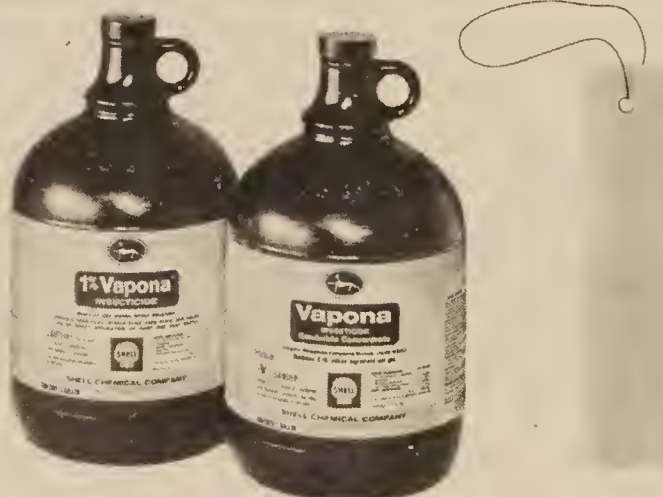
These Shell insecticides control all 4 major flies plus help you avoid problems with milk.

Application Method	Where Control Works	Length of Control	Special Advantages
Ciodrin® Insecticide			
Spray (2% ready-to-use spray), for horn fly, face fly, stable fly, house fly.	Stays on cows — stops fly attack in barn and out on pasture.	One spraying protects all day.	Lasting control that won't break down under pasture conditions. Frees you from residual insecticides.
Hand dusting (3% dust) for horn fly.	Protects grazing cows from hornfly irritation that hurts milk production.	Up to 21 days.	Economical, labor-saving control method. Real staying power that won't endanger milk purity.
Back rubber or face rubber (emulsible concentrate for use with oil) for horn fly, face fly.	Provides especially effective fly control on pasture.	Continuous control.	Automatic, self-applied control. For lactating cows and heifers due to freshen. Face fly control helps prevent pink eye.
Vapona® Insecticide			
Spray, fog, or mist , 1% ready-to-use spray, or emulsible concentrate, for horn fly, face fly, stable fly, house fly.	For cows in barn. Same spray spreads through barn to control flies on walls, ceiling, etc.	Provides near-perfect control then disappears rapidly.	Incredibly fast fly control that can be used on animals or for barns and buildings.
Vapona strip (10-inch resin strip containing Vapona Insecticide, for house fly, mosquitoes, gnats and other small flying insects.	Hang 1 strip per 1000 cubic feet of space in feedrooms, milkrooms, other enclosed areas.	Strip starts releasing Vapona as soon as you hang it. Control continues 6-8 weeks.	Unique new control method saves time, work. Ends spraying near milk or feed. Strip kills flies without ever touching them.
Ciovap® Insecticide			
Spray (Ready-to-use spray combining 1% Ciodrin and ¼% Vapona), for horn fly, face fly, stable fly and house fly.	Flies on cows die fast. So do those resting nearby. Protection also lasts on pasture.	One application ends the fly problem all day—indoors or out.	A single spray works 3 ways. Control flies on cows and around barn.



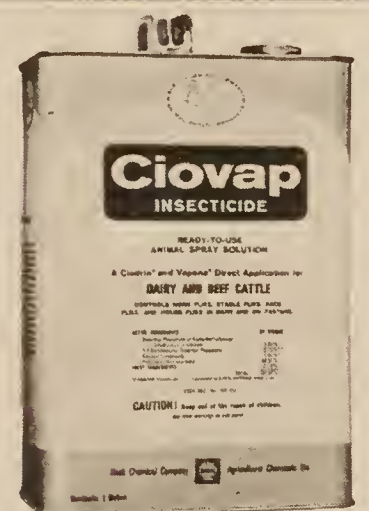
Ciodrin® Insecticide

Available as a 2% ready-to-use spray (gallon), and emulsible concentrate (gallon and quart), and a 3% dust.



Vapona® Insecticide

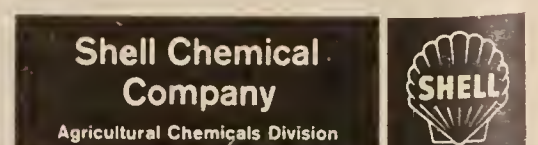
Available as a 1%, ready-to-use spray (gallon) and as an emulsible concentrate (gallon).



Ciovap® Insecticide

Available as a ready-to-use spray, 1% Ciodrin and ¼% Vapona (gallon).

Pick the dairy insecticide designed to work best with your herd and your fly control situation. Available at the Shell Fly Control Headquarters where you normally buy insecticides. Shell Chemical Company, Agricultural Chemicals Division, 110 West 51st St., New York, N. Y.



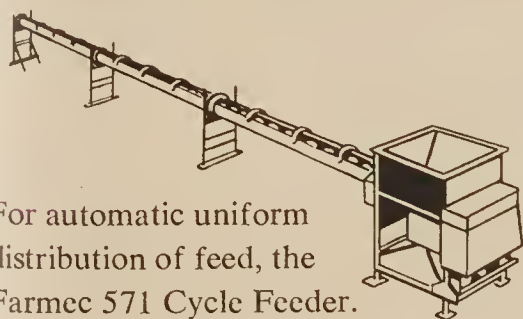


You're the most expensive feeder you can own

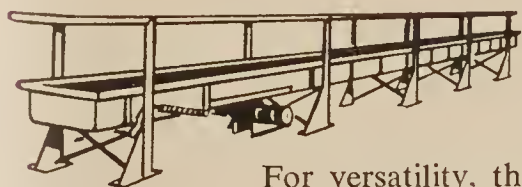
Hand feeding cattle is slow . . . hard . . . time-consuming work. In other words, it's expensive.

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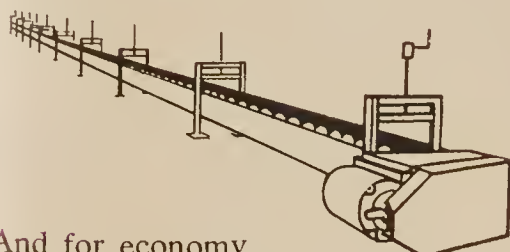
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American Agriculturist, June, 1966



American Agriculturist
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RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 163, No. 6

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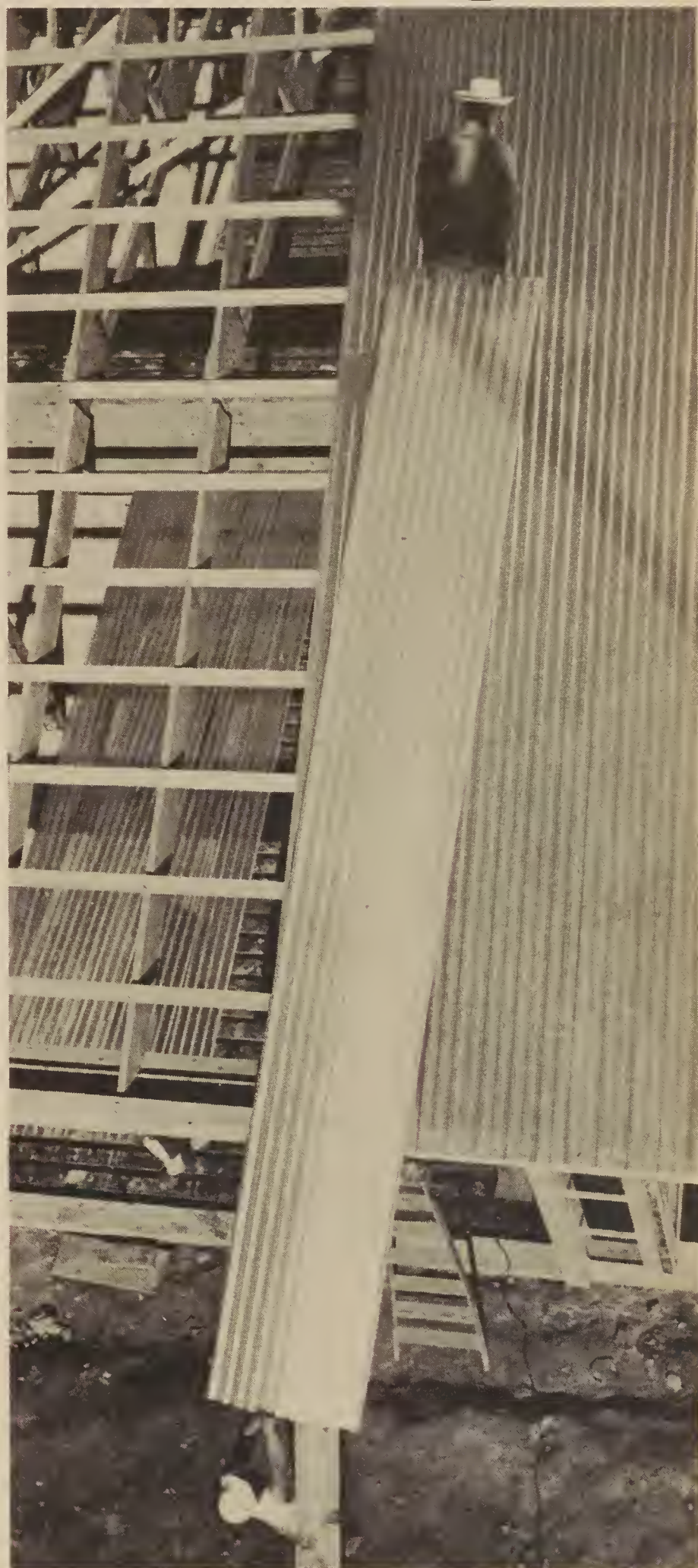
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EDITORIALS

by GORDON CONKLIN



MILK MIST

The milk situation has certain similarities to Viet Nam . . . udderly confusing.

On March 1, the USDA ordered suspension of certain pricing provisions of many federal milk marketing orders during April, May, and June. On March 31, the USDA announced a suspension (effective April 10) of the suspension, and a decision amending the orders. When the mist lifted a bit, the April-June blend prices in all the northeastern federal orders ended up considerably above what they were during the same period in '65 . . . an average of 47 cents per hundredweight above in the New York-New Jersey (Order 2) area.

Almost entirely overlooked was the fact that 39 cents of this 47 cent increase would have occurred as a result of normal market forces, without any modification of order provisions. We've been listening to the "free-market-is-the-law-of-the-jungle" boys so long that we give thanks to the Great White Father in Washington when milk prices go up . . . and damn that "old law of supply and demand" when they're low. Market forces can raise at-the-farm prices, too . . . as they have been doing.

To further assure dairymen that the Secretary of Agriculture is in their corner, the price support level for manufacturing milk was increased to \$3.50 per hundredweight for the year beginning April 1, 1966. But market prices for such milk are (and were) well above the new support level, and are expected to be for a number of months.

Meanwhile, back at the ranch, the boss asked the cowhands at the Capitol Hill spread to castrate the critter carrying the SMP brand . . . Special Milk Program. He knew the boys would refuse to handle such a popular pet thataway, but it would prove he was trying!

In the back room of the bunkhouse, Foreman Freeman ceased to smite his breast on behalf of higher farm incomes . . . and hopefully announced that farm prices will drop 6 to 10 percent before the end of '66. Two other cowpokes sat around the chunkstove and busily drafted orders to keep dairy product prices down. One allowed more imports of dairy products from other countries; the other ordered oleo rather than butter for soldiers overseas.

Some facts remain amidst the mist:

1. Higher returns to dairymen are welcome, and have come about primarily as a result of market forces . . . in turn developing because the number of people engaged in dairying has finally come down to a level where the supply of and demand for milk are more nearly equal.

Prices do allocate production resources in the directions of things people want . . . and they do a better job of this in the long run than do administrators. Even the Russians are beginning to admit this, and are introducing the profit incentive.

2. The need for strong farm cooperatives is more pressing than ever. The USDA is primarily consumer-oriented in the public policy area of its activities.

Most political leaders in these United States are really committed to cheap food, and to agricultural prosperity only if it can be engineered through governmental transfer to farmers of consumer funds withheld from wages . . . and therefore not missed so much. After many years of proclaiming a legislative goal of economic equality for farmers, political

leaders now find themselves unable to live comfortably with consumer protest when farm returns in the marketplace really do approach equity.

3. Effective promotion for milk and dairy products should be expanded . . . and should be supported by all dairymen, voluntarily or otherwise. The long-range best interests of the industry shouldn't be forgotten because of a temporarily more prosperous period.

4. Dairymen should move slowly to increase production . . . particularly in terms of hurriedly making large capital investments. Why build up another surplus to hang over the market?

There are still more adjustments to come in northeastern dairying . . . conversion to almost 100 percent bulk handling of milk being only one. Some farm families located on marginal farms should seriously consider selling out during this time of high cattle and equipment prices . . . and look for employment in labor-hungry industry.

PASSION POTION

Pageant Magazine had an article recently entitled, "The Eight Foods That Spark Sexual Desire" . . . a list supposedly compiled by a panel of physicians. Milk had a prominent position on the list.

Gadzooks! Think of the possibilities here for product promotion . . . Seduction Swizzle Soda, the Manpower Malted, the Stimulator Shake, and the Salome Sundae. Milk cartons could carry messages about Passion Power, Boudoir Brawn, Ravishing Recipes, and Virile Vitality:

Milk might have to be rationed!

"WE TAKE WHAT WE WANT"

Received a newspaper clipping the other day that made my blood boil about a type of injustice we've tolerated too long in the Northeast.

Seems that Mr. and Mrs. Winsor C. Brown of White River Junction, Vermont, have just been awarded \$50,000 in court for 84 acres of land taken by the State for a highway interchange. The land had been taken in 1964 and '65 . . . and the Browns had turned down the \$12,400 offered. Now, get this . . . the State's chief witness testified that he believed it was worth \$26,000 . . . more than twice what had been offered! Two other appraisers testified that the figure should be \$55,000 to \$58,400.

Some people say, "But public employees *should* buy land as cheaply as possible to economize on public funds." Now wait just a cottonpickin' minute! Unlike other marketplace situations, the landowner has *no choice* about selling to the state. Is there anything fair about putting the eminent domain gun to his head and then trying to get his land for a ridiculously low price?

Why should the landowner be forced to wait for years before getting settlement? New York State recently made some administrative changes authorizing partial payment without jeopardizing the legal rights of landowners to go to court later . . . a good move. But in *all* states, the process of payment can be agonizingly slow.

Finally, why should landowners be forced

to pay out as legal fees a big chunk of what they get? This may not disturb state legislators very much, though, because a majority of them are lawyers. If offers were reasonable in the first place, landowners wouldn't have to go to court.

I'd guess that the poorest public relations "enjoyed" by any public agency is that of the departments of public works in the various states. Basically, they do a great job of planning and developing a fine highway system . . . why spoil it with such disregard for the rights of landowners?

As I said, New York has adopted some reforms that have helped . . . but not solved . . . the problem. In all the states of the Northeast, let's keep pushing on this one!

SIGN OF THE TIMES

Alexander Barkan, Director of the AFL-CIO Committee on Political Education, spoke some time ago to a meeting of the National Farmers Union. Among his comments was this one: "Farmers and workers must stick together to accomplish the big unfinished legislative programs that will benefit all the people . . . better social security, better health care, better education, stronger farm programs, adequate housing, liberal credit, and improved welfare programs."

In case you thought our country has already gone quite a long way with the programs Mr. Barkan mentioned, notice he says "unfinished legislative programs." There are still many untasted goodies in the dreamers' bag of tricks . . . including the reverse income tax, guaranteed minimum wage for everybody, and financing of vastly-enlarged Social Security benefits from general revenues rather than from the present system of contributions by employers and employees. It's a fact, friends . . . when the planners get a taste of the fun of giving away other people's money, the exhilaration becomes addictive!

Tax experts tell us that about one-third of the U.S. Gross National Product is being siphoned off by all forms of taxes. Some historians and economists have long stated that, when a country begins to tax much beyond thirty percent, it is headed for trouble . . . looks like we are testing that theory.

The problem that develops is simple . . . the productive people suddenly see that the primary result of their extra effort is the dubious privilege of paying more taxes to benefit those who are less productive. There has always been a degree of this in our social framework since the country started . . . and there should be on behalf of the physically or mentally incapable . . . but recent years have brought a flood of programs for redistributing wealth without regard to productivity. If being productive is not sufficiently rewarded, and if the nonproductive who are able to work can still live pretty high off the hog without working . . . then the multitude that loafs and fishes becomes a reality.

Judging by some of the stories contained in both religious and secular writings, I'd guess that the human race has always secretly longed for a workless existence. The Garden of Eden, for instance, was thought of as a place where every need was met without effort. Nirvana is the peaceful state of lack of desire that every Buddhist hopes to attain. Utopia is a dreamland where abundance flows . . . but no sweat.

As old as mankind itself is the delusion that all play and no work makes Jack a bright and happy boy. The truth remains . . . it is unfair for the goof-offs to eat the wheat grown by the square Little Red Hens. Furthermore, regardless of the protests of the bleeding hearts, people who are capable of earning their own way are happier doing so than submitting to the chains of habitual laziness.

American Agriculturist, June, 1966



PRUNING CHRISTMAS TREES

by W. H. Rawlings*

THE MOST IMPORTANT operation in the Christmas tree plantation is pruning (or shearing). Why? Because there are so many million seedlings planted each year, and the buyers are getting choosy in selecting which tree will go into their home at Christmas time... or which will be planted on their property as an ornamental.

You can easily change the shape of the Scotch pine; therefore this tree has become the number one Christmas tree in New York State. Remember that few trees grow perfectly; most require some control. Since the pines grow faster, they need more attention with the pruning shears than the slower growing spruces and firs.

Least Attention

The nicest compliment we can give the spruces is that they need the least attention. The rule is... don't shear any tree that you don't have to... and a very small number of spruces need attention, while most of the pines will.

When should shearing be done? In our area, late June and early July are the suggested months because the new growth is most easily cut back at that time; new buds also have a chance to form if they are pruned then. Spruces can be pruned at almost any time of the year without harm; but if you cut back the pines during the winter, they lose one to two years growth.

How much growth should you leave? Try to keep new growth (pines) to an average of 12 inches on the terminal (leader) shoot. Some growers suggest waiting until the trees are 3 feet high before beginning the pruning program; others say to cut as soon as growth exceeds 12 inches per year.

We find that it all depends on the tree... if it begins to look leggy or unformed, that is the time to prune. And the well pruned tree seems to command a higher market price than the tree with too much space between each ring of branches jutting out from the central stem.

Watch Taper

Be careful of taper... aim to have the tree with a base $\frac{2}{3}$ as wide as the tree is high. This is an ideal ratio for pines or spruces; for a U.S. Number 1 or premium tree taper may range from not less than 40 percent to no more than 90 percent. It seems that the thinner taper is IN and the maximum taper is OUT right now. Most lots selling trees find it easier to sell trees with the 40 to 70 percent taper than the bushier trees over that taper.

The easiest way we know of to shape small trees is to use a pair of hedge shears, turn them upside

down, then walk around the tree in a circle and cut back any branch that spoils the symmetrical form of the tree... or at least cut it back to proportion. You can determine taper easily by this method.

Pruning shears are the easiest tools to use. The biggest problem with them is that your fingers get tired after pruning 1,000 trees or less. However, the method is relatively simple. Grasp the central

leader and cut it back about $\frac{1}{3}$, or to no more than 12 inches; then cut back the side leaders an equal distance.

You still have a natural-shaped tree and the eye appeal is not lost. Check the side growth. Is it excessive? Does the tree appear lopsided or heavy on one side? If so, cut back that growth too. Move on to the next tree and repeat the process. The good pruner is said to be able to handle about one tree a minute.

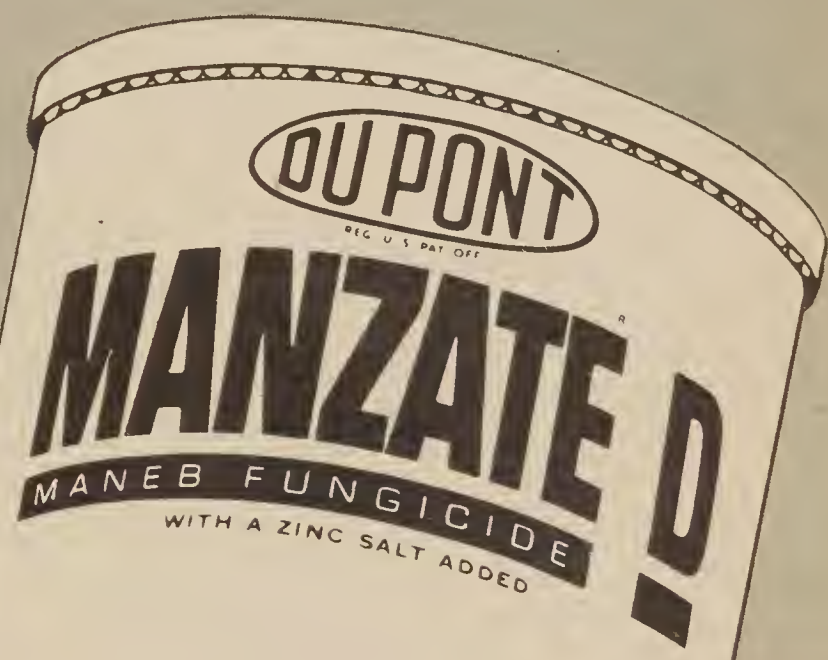
If your trees do not make more than 12 inches annual growth, it is often a waste of time to prune. Pruning has the effect of making the tree bushier and not so scraggly as it might be found in nature.

Some trees will not need any pruning; they seem to be a natural just as they grow. If only all trees were like this! And spruces seldom need the side branches pruned; if you cut back the central leader, the tree will bush out and fill in spaces along the side.

The first time we pruned, we went through and cut the central leader completely out of every tree. Talk about bushy trees! But almost every single one of them sold. And people raved about the nice trees.

But that serves to illustrate our point. Don't be afraid to make mistakes. Nature will cover them and by next year, no one will know what you did.

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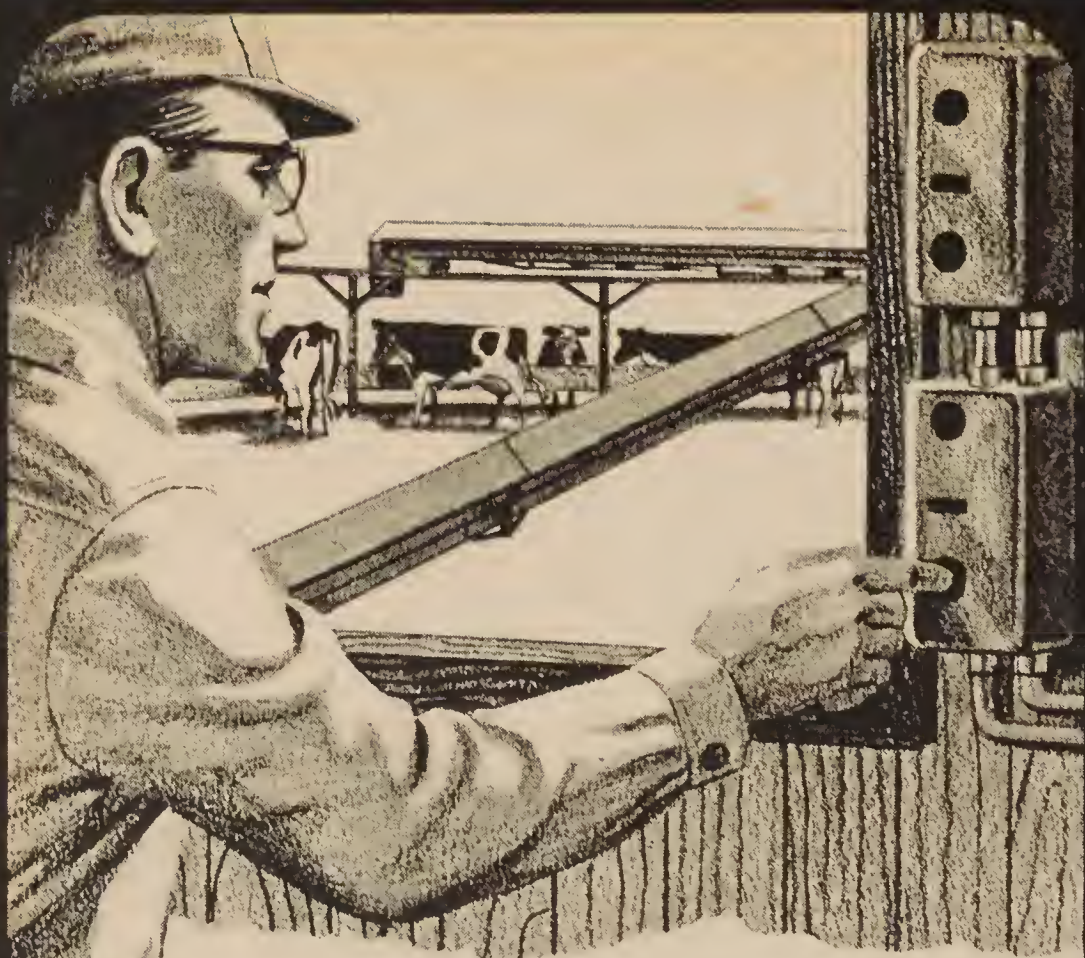
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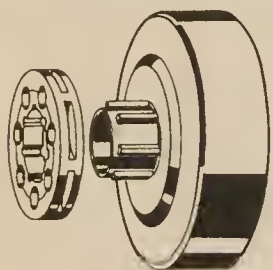
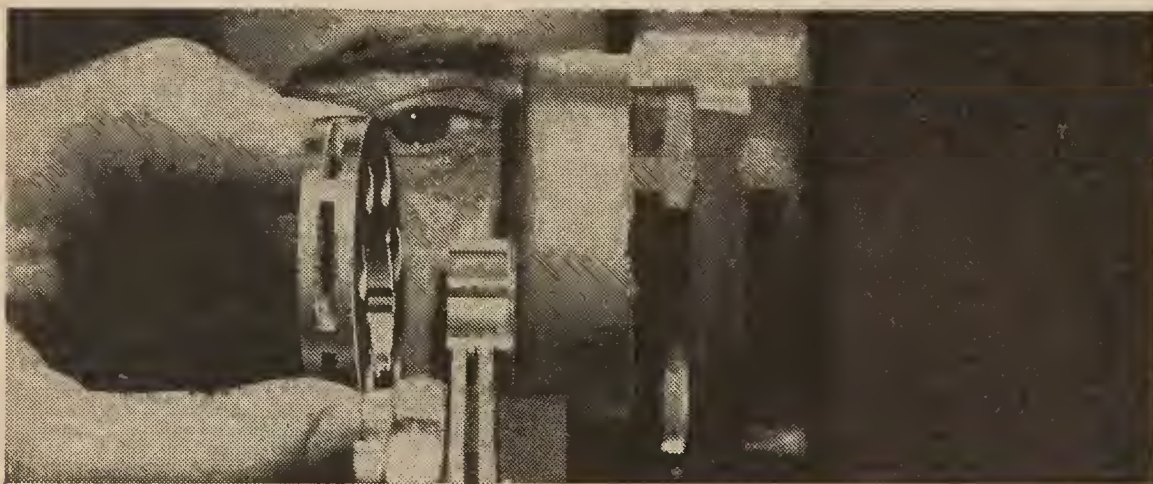
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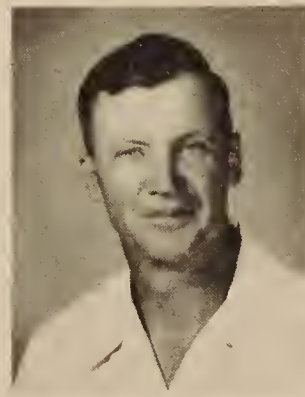
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Gayway Farm Notes

by HAROLD HAWLEY

FERTILIZER PLOWDOWN

This whole business of having a mixing plant close so we can buy ingredients mixed to our specific field needs, have the stuff hauled to us bulk, and augered from a "Fertiveyor" to a spreader is a real change.

For years we had nitrogen applied ahead for a plowdown, but now we put on most of the crop needs before plowing . . . leaving only two hundred pounds per acre to go on with the planter.

On oat ground we spread the crop needs after plowing, then disked it in, and sowed. This saved time, work, and money. With corn there is an added advantage in that the reduction in the amount of fertilizer going through the planter cuts down the fertilizer damage. Always on a side hill the planter slid around enough to place the seed and fertilizer closer than normal on two of the four rows, with some damage resulting. With the rate cut to two hundred pounds there is little of this.

All this business of getting the goods to the farm between the time the ground firms up and the plowing is done takes a lot of planning and co-operation. Last year we had most of the spreading done by truck, which was all right except for an occasional wet hole . . . this year we have spread it with a tractor and spreader and this is better. We can get it on sooner leaving us free to plow whenever we are ready. Also if we can get it on early enough we can avoid the rush for equipment which surely must come later.

As we spread the fertilizer on the oat ground after plowing, we couldn't help but think of some oats we helped plant out in Illinois some 23 or 24 years ago. The farm had two big-wheeled wagons. One hind wheel had a sprocket such as used to be on ground-driven manure spreaders. This drove a chain which drove a spinner which flung the oats as they fell onto it from a hopper fastened to the back of the wagon box. This rig was called an end gate seeder.

The procedure was simple. A team pulled the wagon up the corn rows while a man with a shovel kept oats in the hopper in the back. The oats were spread in a 40 to 50-foot swath. With the farmer filling and hauling the other wagon box, I scattered the oats in the field. By one o'clock we had 160 acres of oats sowed or scattered. The next step was to disk

them in. This was all the planting of oats involved for him. No plowing, harrowing, and no fertilizer.

As I spread the fertilizer for our oat ground, I got to thinking what would happen if we went right back to the barn and threw in the oats and broadcast them, too. Then we could disk and harrow them in with the fertilizer and be done with the job. We didn't do it this year . . . but it's on the agenda to try in '67. Have any of you tried it? We one time tried sowing without plowing, just disking, but weren't satisfied with results wherever we had much clay. However, plowing then disking in the seed might be a different deal.

SENTENCE SUSPENDED

We've become more and more concerned about the large number of people who are convicted of various violations of the law, sentenced, and then have the sentence suspended. It's pretty hard to figure what good such a sentence does or where the justice is if one person serves out his sentence or pays his fine while another one gets his suspended.

There is no use being naive about this sort of thing. If a good lawyer is hired and paid enough to cover "all costs," it apparently is possible to get charges reduced, marks omitted from drivers' licenses, and sentences suspended. This makes a mockery of that noble concept of equal justice before the law. He who merely goes in, pleads guilty, and pays his fine as I assume a decent, honest citizen should, is made to wonder when he sees what can be done. Naturally, I have no solution for this problem except to suggest that judges, justices, and district attorneys should be re-elected only if their record in this matter can stand close scrutiny.

FIRST, SOME SPADE WORK

Among boyhood adventures in higher mathematics used to be calculations to determine how much Jack Dempsey or Gene Tunney made per minute while in the ring. A fifteen round bout, 45 minutes, worth about a couple of hundred thousand dollars to the winner . . . after all the deducts of course . . . figured out to some fancy returns per minute. It was pretty easy to forget the weeks and weeks of train-

(Continued on next page)

American Agriculturist, June, 1966

ing and preparation, and maybe even a few days getting over the big fights.

So it is with almost everything which gets done. Every hour a plane is airborne represents a lot of time by a ground crew getting and keeping her ready to go.

While not so spectacular, the amount of preparation it takes to get started plowing is considerable, and gets bigger each year. It just takes more doing to get these bigger tractors and plows ready . . . but that is not the real point. More is done in the field before the plowing starts.

Earlier this spring, I drove to Ithaca, New York, on a fine bright day when the ground was not yet quite ready to plow. Preparation was apparent at every turn as the various folks tried to get in a position to go as soon as the ground was ready.

We saw several fields being spread with lime or with fertilizer to be plowed down. Two or three men were finishing up burning brush and cleaning up the hedgerows so that job wouldn't hold them up; a few were disking or chopping corn stalks so there would be no hold-up from that job. Then, of course, the last of the manure was being cleaned up and spread. All this makes no mention of the fact that in several yards or sheds we saw the tractors and plows being readied. Like the prize fighter, there was a lot of training and preparation before actually doing the real job. And how well that paid off! When the weather finally broke, the amount of ground which was rolled over was fantastic . . . partly because of the preparations which had been pretty largely done ahead of time.

RESEARCH, PROGRESS

It is hard to come up with many good farm practices that aren't better today than formerly as a result of somebody having done some research on them. Likewise, machinery and equipment keep right on getting better as a result of experimentation and research. I am really impressed by the things that steel can now do better than formerly. Stronger and lighter, or stainless, or corrosion-resistant etc., etc. In short, machinery manufacturers can select about what they need for the job to be done on each separate part of a machine. Steel bottoms and sides for manure spreaders are but one example of a new kind of steel making a spreader last longer.

Somebody has said that at any given time there are now more people working on agricultural research than the total of all the agriculture researchers since time began. This takes in a lot of territory, but whether it is precisely so or not is unimportant. The fact remains that it is this tremendous and impressive array of trained talent that makes for such rapid change and so much progress.

All of us reap rewards from this research. Of course, all of us are involved in the adjustments that this change and progress brings.

American Agriculturist, June, 1966

Hurrah for research and progress!

Now against this kind of a background let us consider what our reaction should be to the following. We read that mastitis is still the most costly disease dairymen have to cope with. A recent housecleaning of our files uncovered recommendations on prevention of mastitis. These suggestions presumably were based on the best knowledge at the time they were printed (about 1946-48). Another pamphlet which got into the files within the past two years had nothing new to offer.

Now we have a "new" modified program which is still based on the same assumptions and general approach as before.

This would in no way be serious

if the first recommendations had covered everything so well that the disease was or could have been eliminated from dairy herds across the country. The fact that it is still such a serious roadblock to dairy prosperity suggests that there was some gap between ultimate truth and belief 20 years ago. With current recommendations reading like revisions of the original, we suspect the gap still exists. Of course, it's only fair to say that we've not all used the available information.

Any thinking person knows that research takes time and money in king-size chunks. If needed, support for appropriations for basic research can likely be mustered. It seems apparent that only if new basic truths are uncovered as to

the real nature of the disease will the much-needed additional progress be made.

Discussions with many people over the past two or three years leaves me still unaware of any really-comprehensive new basic research on this important problem in the whole Northeast. I hope I'm wrong, because only if such research is done will we make headway. Sure, we may get better antibiotics in stronger doses which may more effectively cope with the infection once it has occurred. But what I am talking about is enough understanding of the disease so that there might be agreement among "authorities."

I'm for this kind of research, and feel it is badly needed.



Mr. Robert Meacham
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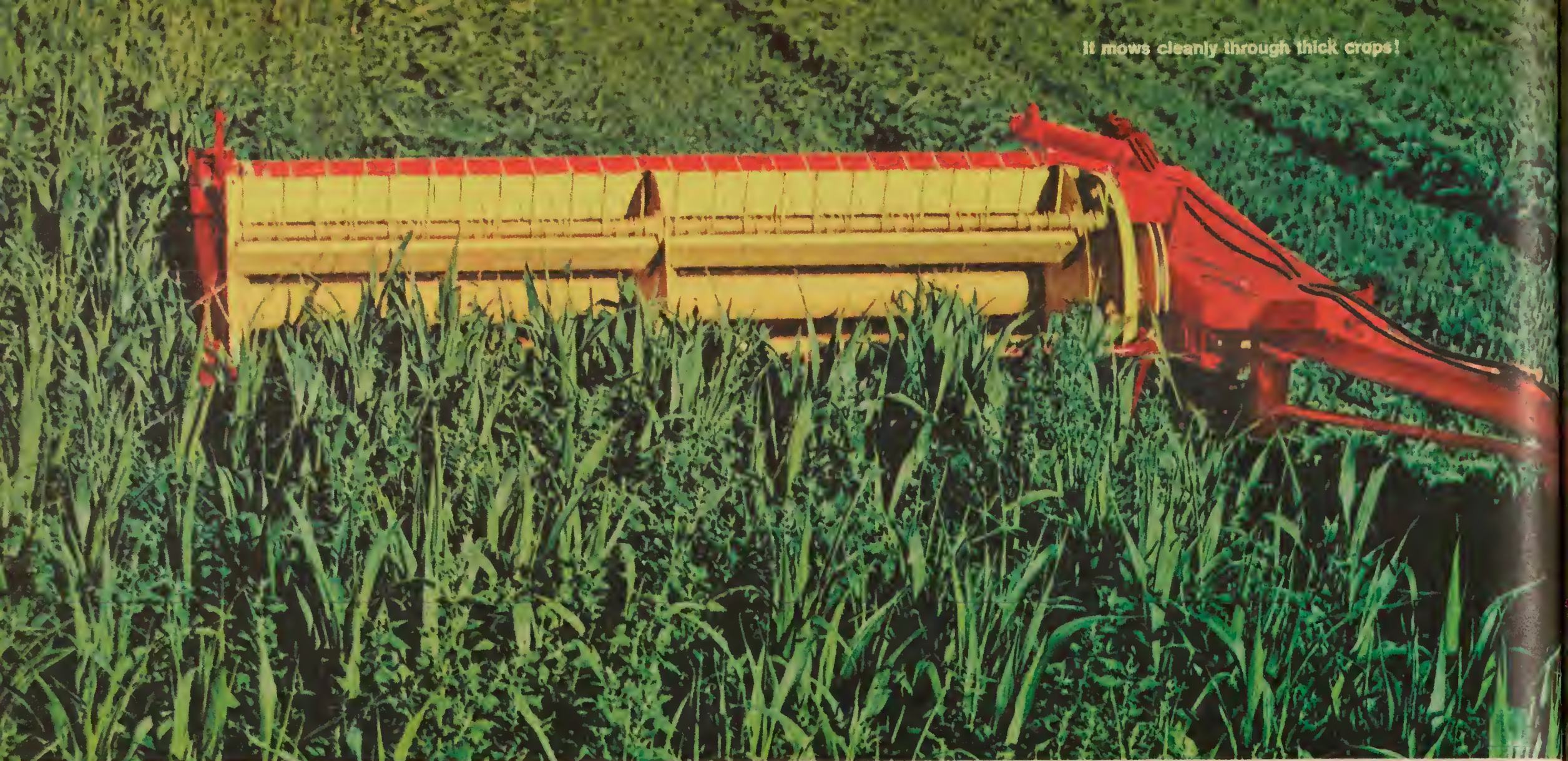


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back into the full-width crushing rolls. Less chance for dirt or stones to get into windrow or swath! Whether you're making bales or silage, this helps keep crop quality high.

The Haybine mower-crusher even has the rugged strength to slice through tall cane and sorghum and lay it into a fast-drying swath.

So don't ever hesitate to plant a high-tonnage crop just because you think it's going to be a problem to harvest. Remember, this is 1966 and the Haybine is here! At your New Holland dealer's, that is. New Holland Machine Co. Division of Sperry Rand Corp.

NH NEW HOLLAND
"First in Grassland Farming"



Associate county agent Joe Donahoe (left) visits with Alvah and Waneta Wayland about ELFAC information report.

TWO ELFAC FARMERS

by Gordon Conklin

ELFAC has been around quite a while, but I'll bet not one farmer in a hundred can tell exactly what the letters stand for. Well, it's Electronic Farm Accounting (I looked it up). In New York State, nearly 300 farms are currently enrolled in this regional approach to farm record-keeping and management. Information is sent in weekly by farmers and a monthly report comes back to them . . . also more comprehensive quarterly and annual reports.

Thought I'd find out a bit about a couple of farms enrolled in the program, so I visited two in Central New York . . . Floyd Voorhees of Silver Springs, and Alvah Wayland of Penn Yan. Both are primarily dairymen, although both have some other enterprises.

Sizable Herd

Floyd owns 560 acres, rented 12 more in '65 . . . keeps 85 milkers and 65 head of young cattle. This year marks the third one that he has been enrolled in ELFAC. He likes the availability of figures to stack up beside comparable ones for last year and the previous month . . . such things as production levels, expenses, receipts, labor efficiency, etc.

The latest Voorhees DHIC rolling average shows a herd production average of 14,600 of milk and 566 of fat . . . despite the inevitable stress of moving cows into a new free stall barn in '65. It's actually a 78 x 120-foot addition to the old stanchion barn, which is still used for calf quarters, holding the cows needing special attention, and hay storage.

The free stall area (110 stalls) is a pole-type structure with steel roofing on top and sides. It has an unusual amount of light inside because there are twenty 4 x 10-foot translucent panels in each slope of the gable roof.

Even at night, there is plenty of light in the free-stall area, too. A mercury vapor light mounted high on the ceiling is controlled by an electric eye that flips a switch automatically . . . on at dusk and

off at dawn. Manure is scraped from both ends into a regular gutter cleaner acting as a cross conveyor and discharging into a manure spreader.

If cows were in a conventional stanchion barn, Floyd figures he'd be using \$900 worth of straw for bedding each year . . . rather than the \$15 worth of sawdust he's putting into free stalls each month. Last fall and up until January this year, he field-chopped cornstalks for bedding.

Corn not only provides grain, but also lots of silage . . . there are four in the entire operation, two 16 x 40, one 20 x 50, one 12 x 35, and a 12 x 45. Floyd feeds 50 pounds of silage per cow per day in a concrete bunk (66 inches wide, 8 inches deep) inside free stall barn. There's a curb along base of the bunk 16 inches wide and 6 inches high . . . to discourage bovine shennanigans.

The Voorhees filled the two 16 x 40's with hay-crop silage at 50 to 55 percent moisture last year, and report good results. The author smelled haylage coming out of the bottom of one of these almost-empty silos and can report he never smelled better . . . this in spite of the fact that both these silos are wood . . . not commonly recommended for haylage. In future years, cows will normally get

hay-crop silage in summer and fall, then corn silage in winter and early spring.

Floyd says, "The first week we began cutting hay-crop materials, we made hay. Then we switched to haylage and pounded 55 acres into the silos in one week. Next week we went back to hay and struggled to get in 20 acres in a week." Plans for '66 include putting up one silo of high-moisture corn and cob meal to be fed as grain.

All grain is fed in the 4-stall side-opening milking parlor, where employee Frank Fuller does the milking. Frank's duties involve only the general milking area . . . besides milking, he cleans up parlor, milkroom, and holding area . . . as well as keeps track of heat periods and medication needs. A chart on the end wall of the parlor tells him how many pounds of grain to feed each cow.

Wayland Farm

Alvah Wayland of Penn Yan, another ELFAC cooperator, is buying on contract his 220-acre farm from previous owner Chester Gray. Alvah "climbed the ownership ladder" on this farm . . . 2 years as hired man, 2 years working the place on shares, and now 3 years of the contract-purchase arrangement.

"A contract is one way for a young fellow with limited capital to get started in farming," Alvah says. "It's not easy . . . but neither is it impossible . . . for a young fellow to get started these days."

Corn is an important source of



Floyd Voorhees puts grain feeding instructions on blackboard.



Cows at the Floyd Voorhees farm in new barn.

TDN for the 55 cows on the Wayland place, too. Eighty-six acres were planted in '65 . . . all but 20 went into silos.

Corn fertilization includes 100 pounds per acre of actual nitrogen plowed down on fields going into second year corn with no manure . . . 40 pounds of N on sod where manure has been spread. For both situations, a starter fertilizer of 250 pounds per acre of 5-20-20 is used.

Corn was all planted the day before Decoration Day in '65 . . . and the Waylands have begun haying on the 28th of May for the last three years. Alvah likes corn mature for silage, would "rather see it frosted than cut too early."

There's a forced-air (no heat) hay dryer in the barn, but Alvah says, "I wish the money were in another silo." He plans on using more haylage for summer feeding in future years . . . doesn't like greenchopping after trying it one season a few years ago.

Alvah fed 90 pounds of silage per cow per day for a while last winter plus four pounds of hay. As the silage supply melted rapidly, he cut down to 70 pounds of it and upped hay feeding.

Butterfat

He reports no depression in butterfat as a result of high silage feeding levels, but comments that he has never fed hay at less than four pounds per cow per day. When feeding high levels of silage, he ups protein in the grain ration to 20 percent, drops back to 15 or 16 percent when more hay is fed.

Grain feeding in this conventional stanchion barn follows DHIC recommendations . . . plus some more for top cows. The latest herd production figures at Farview Farms show 14,157 pounds of milk.

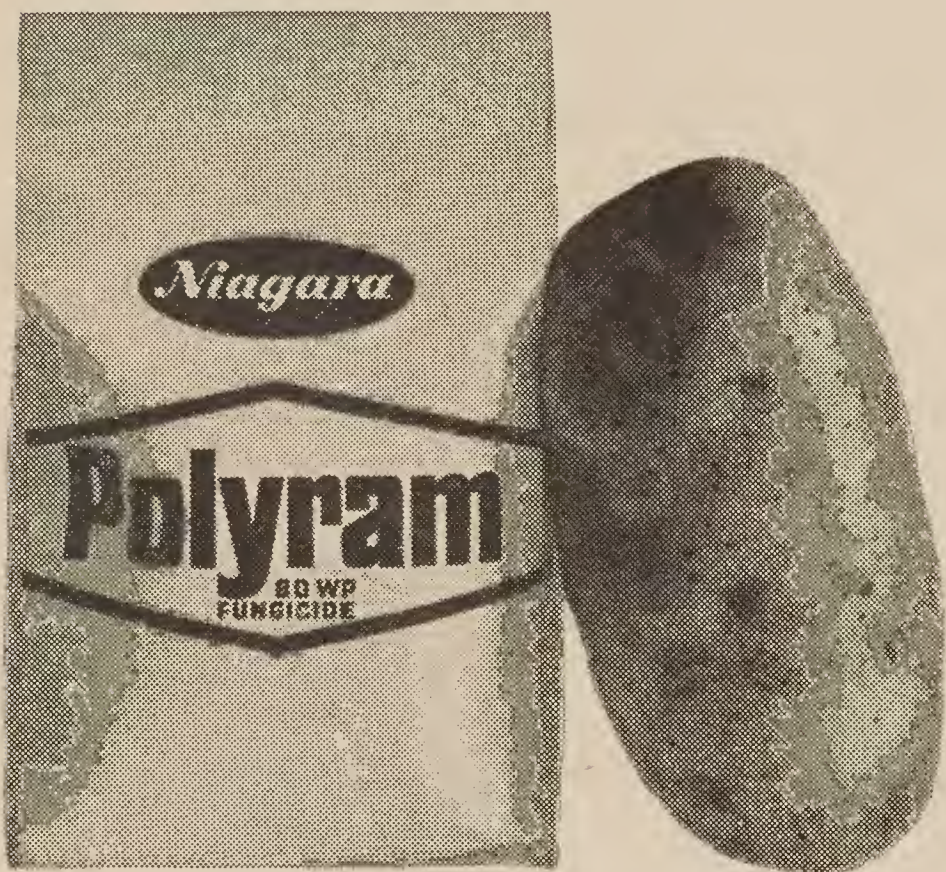
In addition to ramrodding the farm operation . . . which includes 130 rented acres plus the home farm . . . Alvah finds time for leadership roles with St. Paul's Lutheran Church in Penn Yan, the Yates County Agricultural Society, Agway, Eastern Artificial Insemination Cooperative, and a 4-H Club. In fact, he reports the Senyuka 4-H Club to be one of the oldest in the State, started long ago by his grandfather.

Three of the Wayland children are enthusiastic 4-H members . . . Douglas, 14; Gregory, 13; and Diane, 11. Jeffrey, aged 8, is looking forward to the time when he will join in the fun, too.

These two families . . . the Voorhees and the Waylands . . . are in the process of building sizable farm businesses. ELFAC has proved helpful at income tax time, and in providing the management information so essential to heads-up performance.

In New York, College of Agriculture economists have set up a pilot project designed eventually to take over ELFAC's job in the State. There are 125 farms enrolled this year. Regardless of the title of the program . . . ELFAC or XYZ . . . most everyone agrees there is more bookkeeping and management analysis in every commercial farmer's future!

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Potatoes grow *better* with Polyram. A lot better.

Strong statement? You tell us.

We say: It's as effective as any blight control you can buy. (Keeps early and late blight from sneaking in.) It's compatible with all potato insecticides in common use. (And sodium arsenite.) Its physical properties are excellent. (Stays in suspension, spreads evenly.) It's safe. (No known cases of injury to foliage.)

Growers say: It's also been giving them higher yields of No. 1 potatoes. And a surprising important plus: Better chipping potatoes, an acceptable color at harvest time and after chilled storage.

How come? We honestly don't know. We think it's the zinc in Polyram that helps. Whatever it is, we're with our growers 100% of the way.

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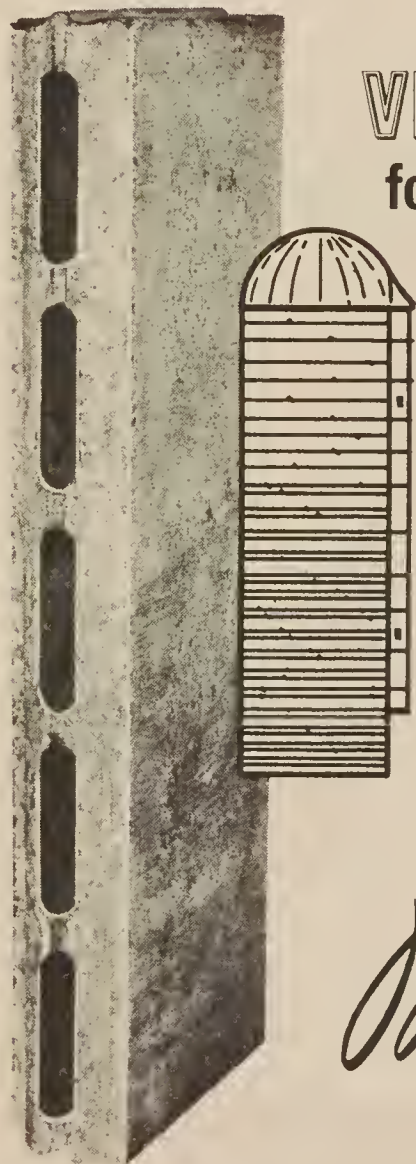


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The Forum, meeting place of the ancient Romans, is one of the most photographic spots in Rome.



MEDITERRANEAN- HOLY LAND TOUR

Any tour with American Agriculturist and Travel Service Bureau is a thrilling experience, but there is something absolutely irresistible about a trip to the Holy Land and the Mediterranean. And imagine being able to see all the wonderful things mentioned on this page in just three weeks! This is possible because we're flying both ways on one of Pan American's beautiful, sleek jets.

The dates are September 27 to October 19, and here, very briefly, is the schedule for this fascinating, once-in-a-lifetime vacation:

Rome: Two days in the "Eternal City" give us time for sightseeing and shopping. We'll see the Pantheon, St. Peter's Square and Basilica, Trevi Fountain, the Colosseum, ruins of the Roman Forum, and other historic places.

Istanbul: Next comes the "Pearl of the Bosphorus," with its 500 mosques and innumerable palaces of the Sultans. We'll see the Basilica of St. Sophia, the famous Blue Mosque, and a 6000-piece collection of Chinese porcelain dating back to the 9th Century. We'll tour the Bosphorus by bus and ferry.

Lebanon and Egypt: An overnight stop at Beirut with an excursion to Cedars of Lebanon the following day. Then, three days in Cairo on the fabled Nile. Sightseeing here includes a full-day tour to the Pyramids and Sphinx, with luncheon at famed Mena House on the desert's edge.

Palestine: For many, this will fulfill a lifetime longing — to drive along the same roads and walk down the same narrow streets that Jesus traveled so many years ago! We'll visit many of the places associated with His life on earth — Jerusalem, Mount Calvary, Pool of Bethesda, Pilate's Judgment Hall, Mount of Olives, Garden of Gethsemane, Bethlehem and Church of the Nativity, Lazarus' Tomb, and the home of Mary and Martha.

Greece: The grand climax of our trip — beautiful, classical Greece! After an afternoon in Athens, we start a four-day journey into the heart of the Peloponnesus, Greece's ruggedly beautiful farm-

ing country. On this trip we visit Corinth, Nauplia, Olympia, the region around Mt. Parnassus, and Delphi.

Returning to Athens, we have a day at leisure for shopping or to revisit places we particularly enjoyed. On October 19, we fly to Rome and board our Pan American jet for a non-stop flight to New York, arriving there in mid-afternoon.

Like all American Agriculturist tours, this will be an escorted, all-expense trip, with everything included in the price of your ticket — transportation, hotels, sightseeing, baggage handling, all meals (except beverages at lunch and dinner in Europe), and all tips.

Alaska and Hawaii

There is still time for you to join our second Alaskan Holiday (July 27-August 14), featuring the beautiful Inside Passage cruise with stops at Prince Rupert, Ketchikan, Juneau, and Skagway. Side trips will take us to Mendenhall Glacier, and along the "Trail of '98" to Lake Bennett and Carcross.

Also, there is still some available space on both of our Hawaiian Tours (July 29-August 14 and October 7-23), and the itineraries are almost identical. We'll see all the beautiful and famous sights of the four best-known islands — Hawaii, Maui, Kauai, and Oahu.

Mail the coupon today and request as many itineraries as you wish. Whichever tour you choose, we promise you the time of your life!

Gordon Conklin, Editor
American Agriculturist
Box 370-T
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Please send me, without obligation on my part, the following tour itineraries:

Mediterranean Tour _____

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Address _____

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American Agriculturist, June, 1966

KILL THE COMPETITION!

More usable moisture per tree
with herbicide weed control program.

AT THE University of New Hampshire, tests are being conducted to find out just how much moisture-robbing weeds and grasses affect apple tree production. Frequent measures are being taken of the amounts of moisture present in the root zone of apple trees in a test plot. Dr. C. A. Langer, and graduate assistant, Conrad Marcotte, are carrying out these tests. The experiment has now run for two years of a scheduled 4 or 5-year test.

Object of the experiment is to compare the amounts of moisture found near the root system of the apple trees under various ground surface conditions. For example, the theory that mulching or treating ground surfaces with an herbicide can result in more available moisture for tree consumption has been tested and proved correct.

Twenty Trees

For the experiment, Dr. Langer has chosen twenty 15-year-old apple trees of the Roger's strain of the McIntosh and Macown varieties. Three plaster of Paris blocks were placed in the ground at various levels around the base of each of the twenty trees. Conductive leads are attached to each block and run upward to the earth's surface.

At ground level a Bouyoucos Moisture Meter is connected to the wires every two weeks, and readings taken. To get comprehensive readings, the blocks are placed at various compass points in relation to the individual trees. It was determined that three blocks per tree, placed at 6-inch, 18-inch and 28-inch levels would obtain the most accurate and significant measurement of the amounts of soil moisture present.

Same Management

All twenty trees in the test plot receive the same management and care with respect to fertilization, pruning and spraying. However, there are differences in maintenance procedures of the ground surface areas. Five trees receive no surface care, five trees have ground surfaces mowed, five trees are mulched, and for the remaining five test trees ground surface areas surrounding them are sprayed with an herbicide to eliminate vegetation. Surface areas being considered in the test are all tree-wide in diameter.

Each surface-treated area receives the most efficient care for the particular agronomic practices involved. Trees being mowed receive this care two or three times a year, a common commercial practice. Mulched trees receive six to eight inches of hay or straw.

Herbicide-treated surface areas are treated with amazine, amitrol-T or a combination of both herbicides. Although the herbicides are applied in tree-wide circles for the

purpose of test, large scale application of herbicides in commercial orchards demand swath spraying in order to provide more even application. Note the average moisture per tree, as shown in the table for the 1965 growing season.

During several weeks in August and early September, meter readings of zero percent were registered (at 18 and 24-inch levels) under mowed and non-mowed check plot trees. There were also continual

fluctuations in the upper six inches of the soil early in the season in these two test areas. While the zero readings were found for mowed and non-mowed check plot trees, comparable readings for mulched and herbicide-treated trees were low but steady.

Production has shown no great difference in bushel per tree figures over the two year period, with the exception of the unmowed trees

being the lowest producers each year. The quality of the fruit has been remarkably higher from trees whose ground surfaces were either mulched or maintained by a herbicide weed control program. Trees that were mulched and mowed were about the same with regard to quality of fruit; fruit quality where ground surface areas under the trees was unmowed and untreated fell off sharply.

AVERAGE MOISTURE AVAILABLE AT VARIOUS SOIL DEPTHS 1965

	April 30 to June 26			July 9 to Oct. 3		
	6"	18"	24"	6"	18"	24"
Herbicide-treated	93%	95%	96%	90%	55%	18%
Mulched	88	87	85	24.5	24	19
Mowed	83	84	84	49	45	18
Not mowed	80	81	82	41	36	16

Tinsel in July? Not quite. But Atlantic does change the calendar around to give winter the cold shoulder! By extending winter heating oil payments over 10 months, each payment becomes smaller, easier on your pocketbook. So you won't be burdened by high bills at the peak of the season. And there's no premium for this special Atlantic budget payment plan. It's just another of the many Atlantic services.

You'll like the low monthly payments. The modern, safe heat you'll receive from Atlantic

heating oil. And when winter cold roars in you'll be assured of automatic deliveries by your Atlantic man for round-the-clock comfort with Atlantic's triple-refined heating oil. So even though Atlantic Richfield Company has made winter longer...you'll be enjoying it more!

Now smile.

For quality gasoline, diesel fuel, motor oil, heating oil, kerosene...for prompt deliveries, loan of equipment, complete service...call Atlantic Richfield Company or your Atlantic distributor.



We made winter longer
...so you could
enjoy it!



Belt-tighteners instead of seat belts seem to be the most popular subject among New Jersey growers this year. These belt-tighteners come in various forms, and are being applied to cut costs in a day when farm prices are relatively stable yet costs are mounting.

Jack Fernwalt, Mount Holly, who operates a fertilizer-spreading service (Agway) reports that as much as \$4 to \$6 a ton may be saved by purchasing bulk fertilizer and having it applied. The saving per acre, of course, depends on the analysis and the rate of application.

Lester Rook, Salem County farm supply dealer, reports that with the new fertilizer tenders one may load fertilizer from a bulk bin at the rate of a ton per minute. These tenders can move from the bulk bin to the field in less time than one could load a ton of bagged fertilizer from the warehouse to the truck.

Alfred Caltabiano, manager of the Gloucester County Agricultural Cooperative Association, reports that the Association's fleet of five tenders has helped fruit growers fertilize hundreds of acres at savings in bags alone of \$4 per ton.

Harvesters

Spending big money for potato bean and tomato harvesters may not seem like belt-tighteners, but



BELT TIGHTENERS!

by Amos Kirby
New Jersey Editor

growers have the facts:

Kelly Brothers, Salem County, spent upwards of \$16,000 for a bean harvester, plus tractor. Three men with the harvester picked as many beans as had been picked the previous year at a labor cost of about \$10,000... and the beans were picked on time and no waiting for workers to show up. Seabrook Farms harvested nearly 2,400 acres with three machines in 1965, with only extra labor to haul the beans to the processing plant. It is apparently easier to buy the machines than to secure workers to pick the crops.

DRY WEATHER

County Agricultural Agent C. Fred Lorenzo, Warren County, has a dry weather suggestion on fertilizing corn:

He recommends that the fertilizer be placed at least two inches deeper and at least two inches from the seed. In addition, in thinking about

corn next July and August... when the ground may be dry... it would be a good idea to apply the fertilizer to the land before plowing. During the drought of 1965 many vegetable growers found that applying the fertilizer before plowing placed it deep in the soil where the roots went down for both food and moisture, and thus were better able to stand periods without needed moisture.

GOING UNDERGROUND

More and more irrigation pipe is going underground. It is an economy move. It costs a lot of money to move portable irrigation lines. Placing the mains under the ground speeds up cultivation, and clears the land for spraying and other field operations.

Lester Jones, Medford, is one who has placed his main lines underground. Some are using iron pipe; others transite. In the opinion of Lewis Barton of Haddonfield they are competitive in price. There

is less friction in the transite pipe, and from past experience he feels the latter will outlast iron or steel.

Mr. Jones has buried a 5,000-foot 8-inch main line across his farm, with laterals that may be moved from field to field. He has 300 acres that can be irrigated from this one main line of pipe, located below the frost line, and it does not interfere with plowing, planting, spraying, or even harvesting the crops. Last year Mr. Jones irrigated 90 acres of sweet corn, 50 of tomatoes, and about 150 acres of field corn.

BYE-BYE, CHICKWEED!

One of New Jersey's most persistent weeds has met its equal. The persistent chickweed, that germinates when most weeds are going to sleep and then grows all winter long, has been successfully check-reined with dacthal.

Last fall, under the advice of Agricultural Agent Robert Gardner, Lloyd Yeagle & Son, Salem County strawberry growers, treated a strawberry field with this herbicide in an area where chickweed thrives like onions do in Orange County, New York. When the spring opened up in March... and the chickweed really moves into action... the Yeagle berry field was free of the pest. This means a good crop of berries, easy picking in a weed-free bed... and big berries mean better prices.

GOOD POULTRYMEN

There are still some good egg producers in New Jersey despite all the talk about losing money and poultrymen going out of business.

The records of four poultrymen who had production records of 248 to 277 eggs per housed bird are proof that it can be done. The four poultrymen interviewed were:

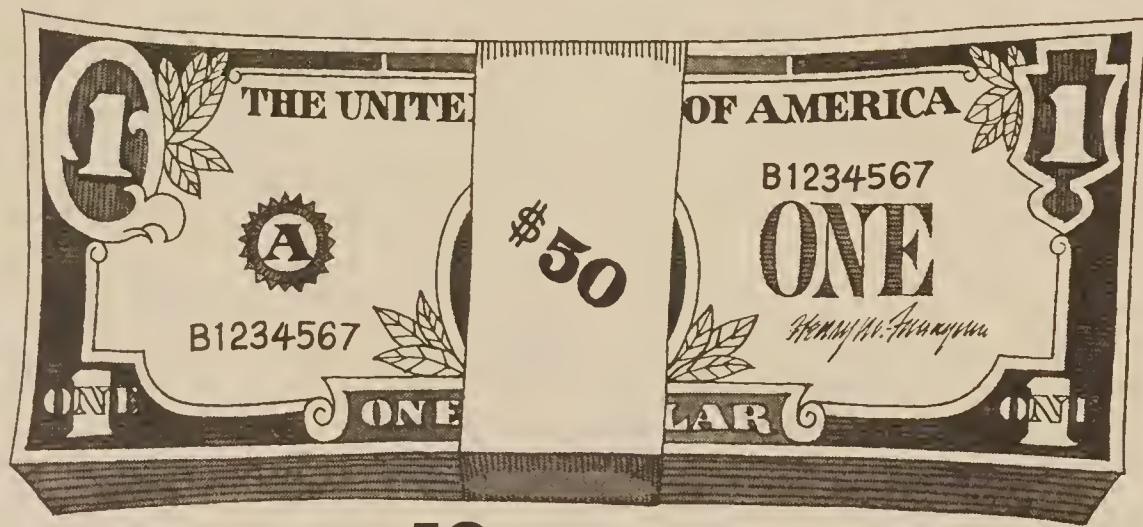
Hirsch Nadel, Monroeville, with an average production of 277 eggs per bird housed in a 12-month period; John Hurff, Sewell, with 254 eggs; William Toomey, Sewell, 252 eggs; and Fred Link, Mullica Hill, 248 eggs.

What did they do to achieve these goals? It wasn't the feed... they used two competing brands... nor was it the method used in housing. The one thing they had in common was the use of the same strain of stock (all Hy-Line). But that doesn't tell all the story.

Hurff, with 7500 layers and Link with 4500 buy started pullets; Toomey with 11,000 capacity and Nadel with 9000 layers start with chicks. When it comes to vaccination, housing, ventilation and sanitation they are all good housekeepers. They have no secrets: they supervise their flocks; pay attention to details; market their eggs direct to stores, some at retail and some to dealers who supply wholesale and retail channels.

The only thing that concerns each is: "Can I equal these records in 1967?" If management has anything to do with their success, a year from now they will have some impressive results to report.

American Agriculturist, June, 1966



**50 reasons
why you should get an
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water heater right now.**

Niagara Mohawk will pay you \$50 in cash when you buy an electric quick-recovery water heater. Just replace a non-electric heater between May 1 and July 10, 1966, and install it on Niagara Mohawk lines by July 31, 1966. If you replace an old electric water heater, we'll pay you \$15. The new unit must be 4,500-watt, upper and lower heating element, quick recovery, minimum 40 gallons. For milk-house use, water heater must be 50-gallon minimum and satisfy requirements of milk-marketing area-health inspectors.

Want some more good reasons? 1. You won't run out of hot water. 2. You won't mop up again after a leaking old water heater. 3. An electric quick-recovery water heater makes hot water instantly. 4. You'll never worry again about pilot lights, flue or fuel tank. An electric water heater doesn't have any.

Still want more reasons? See your Niagara Mohawk Farm Representative. He'll give you plenty.

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EGG MARKETING ORDER

SPICE (New York Poultry Industry Coordinated Effort) and the New York State Poultry Producers Council are exploring the establishment of a marketing tool... a State promotional marketing order... for advertising and promotion as a means of building a greater demand for poultry products.

Leaders of SPICE agree that poultrymen can take a giant step forward if producers of both egg and fowl unite to establish a pool of adequate funds to build a demand for poultry products. The purposes and area of operations in the proposed Promotion Marketing Order are as follows:

1. To advertise, promote, merchandise, and publicize New York State eggs, egg products, and by-products, including fowl.

2. To conduct (or have conducted) egg marketing, egg products, and poultry by-products research.

3. To contract with any other persons or organizations to provide informational services designed to keep producers informed on all phases of marketing and product research, promotions, advertising, and any other information important to producers.

Through the fine cooperation of the Extension Service in their educational meetings (followed by information meetings sponsored by SPICE) all poultrymen in the State will have an opportunity to get better acquainted with the proposals before they vote on the order.

It is estimated that the State marketing order would raise \$400,000 to be used to help market New York eggs. This assessment would not be over one-third of a cent per dozen.

CALEDONIA STOCK SHOW

The 17th annual New York "Meat Animal" Show and Sale is set for Friday, September 9, at the Empire Stockyards, Caledonia, New York. The program will include a show and sale of lambs, hogs and steers, and a banquet for all 4-H and FFA exhibitors.

Entries must be made by September 2 on entry blanks available from county Extension offices, the Department of Animal Husbandry, Morrison Hall, Ithaca, New York, and from John Moran of Caledonia, New York. The show is open to residents of New York State, and has two divisions... one for youth and the other for adults. Exhibitors are limited to two entries per class.

SOYBEANS

The anticipated New Jersey acreage to be planted in 1966 in corn is 130,000 and soybeans 50,000.

Soybeans are already an important cash crop and represent a substantial financial return to our farmers. Our marketing outlets are mainly in Philadelphia for exporting, and in Delaware and

Maryland for processing into oil and meal.

A new variety, Adelphia, released by Dr. John Anderson of Rutgers, is doing much to improve quality and yield of the soybeans grown in this State. A 40 to 45 bushel yield is not uncommon, and with these returns our growers are in a fair position with our mid-western counterparts. Of course, the drought we experienced during the last several seasons reduced our State averages tremendously. Dr. Anderson has several other selections of soybeans that he is testing on a more extensive basis.

We feel that we have not reached our peak in production. Although soybeans do not have as high a

potential cash return per acre as do our vegetable crops, they adapt very well in a rotation program. The labor requirements to produce, harvest and market soybeans are at a minimum. One man properly equipped can handle all phases of soybean production for several hundred acres.

The certified seed program in New Jersey will be approving more soybean seed this year than ever before. A total of approximately 14,000 bushels of seed has met the requirements for certification. This seed will plant approximately 25 percent of our State acreage. — *Phillip Alampi, Department of Agriculture, Trenton, New Jersey*



A red pilot light connected in the line and located above the heated waterers indicates when waterer is working... no light indicates trouble.

I'd like to find an easy way to control foot rot.



You've found it.

Morton Mineral Mixture Medicated or Morton T-M Salt Medicated, both with EDDI*.

- Used as a top dressing on feed, Morton Mineral Mixture Medicated will give your cattle the active drug ingredient, EDDI, that aids in the prevention of foot rot and soft tissue lumpy jaw.

- In addition to EDDI, Morton Mineral Mixtures Medicated are complete, nutritionally balanced combinations of the major minerals, salt, calcium and phosphorus, and the six vital trace elements. They provide a choice of two levels

of phosphorus, 8.4% and 6.0%, to suit individual feeding requirements.

- As in all Morton Mineral Mixtures, the ratio of calcium to phosphorus is 1.75 to 1 or less.

- Because the EDDI is blended into a completely balanced mixture of the major minerals (salt, calcium and phosphorus) and the six vital trace elements, each Morton Mineral Mixture Medicated offers complete "one package" convenience.

- All ingredients are uniformly distributed throughout both products in amounts shown in the guar-

anteed analysis, providing built-in quality control in any feeding program.

- And, if your needs call for a trace-mineralized salt only—feed Morton T-M Salt Medicated. Its high levels of EDDI are also an effective deterrent to foot rot and soft tissue lumpy jaw.

- Why risk costly and lengthy cures for foot rot? Prevention can be as simple and economical as feeding Morton Mineral Mixture Medicated or Morton T-M Salt Medicated. Let us prove Morton is more than salt—it's ideas in action.

*Ethylene Diamine Dihydriodide

Morton Salt Company

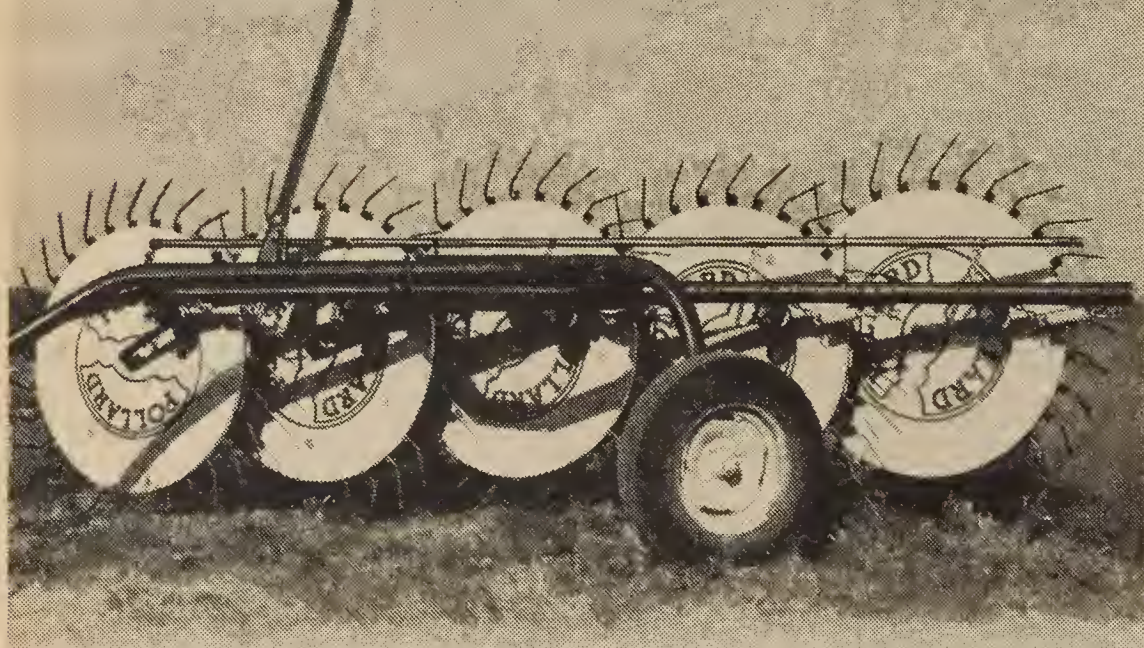


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POLLARD "540" — 5 raking wheels, up to 7' 3" swath. Saves hay and saves you up to \$100 when you buy it.



WHEEL RAKES rake faster, cleaner, with less leaf loss, over all kinds of ground—in all kinds of hay, light or heavy. Pollard gives you all the features of other wheel rakes—at very low cost—plus:

- Ball bearings in raking wheels ■ Lever lift to raise raking wheels ■ Economical single tooth replacement ■ Sturdy 2 7/8" tubular frame

Heavy-duty "48" series can be tailored to fit your haying requirements. Available with choice of five, six, seven or eight raking wheels, to rake up to 13'.

WINDROW TURNER—Here's the one fast, easy, inexpensive way to turn even the wettest windrows. Doesn't shatter or damage leaves. Universal mounting. Fits any tractor—left, right or front. Excellent for trash raking.

POLLARD

DIVISION OF DAFFIN CORPORATION

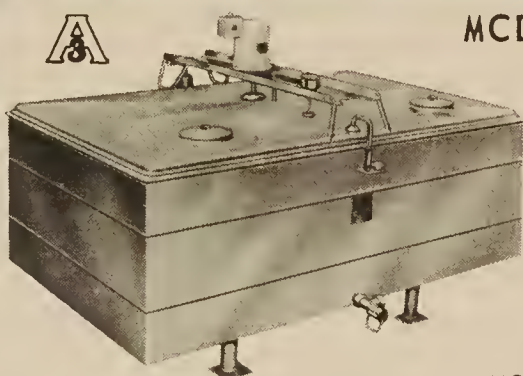
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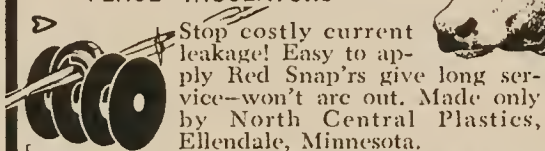
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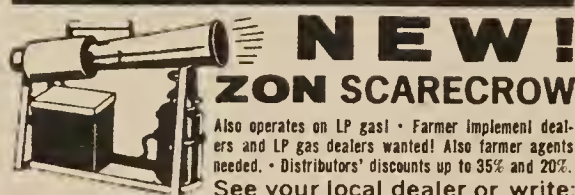
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Doc Mettler Says:

FARMERS ARE OPTIMISTIC

Dairy farmers are more optimistic and cheerful this spring than I have seen them in many years. The prospect of a few cents more per hundred for milk, and a good beef price for cull dairy cows, have changed the small talk on calls from "how long am I going to be able to keep this up?" to "next year when we move into the new barn and milking parlor." Believe me when I say it is the most pleasant spring I've spent in a long time.

New barn talk is always interesting because no two men have the exact same ideas. Farmers wouldn't be farmers if they were conformists; they enjoy being independent and "different." Our practice straddles the Massachusetts-New York State line. For some reason the new barns in Massachusetts run to some type of free stall setup with milking parlor, whereas New York is going to conventional barns with pipelines. There are exceptions, of course, but that makes it even more interesting. In general, farmers want two things in a new setup... more comfort for their cows and less man hours per cow for themselves. I agree with both ideas.

By tradition veterinarians are supposed to dislike loose housing-type setups. I can't agree with this, because the type of setup that is best for one farmer is bad for another. I think the choice is purely personal, depending upon the farmer's personality. I certainly think that once a man starts to milk over a hundred cows, conventional barns must give way to loose-type housing and milking parlors.

As far as the veterinary point of view is concerned, the near elimination of foot work and stepped-on teats in free stalls and loose housing more than makes up for the slight inconvenience caused by cattle not being confined at all times. A well-managed farm is easy to work on whether the cows are in stanchions or running loose.

Plan Hospital Area

One thing that is often overlooked in a loose housing-type of setup is a provision for handling sick cattle, testing and routine breeding, and sterility work. If one is constructed after the setup is operating, it is usually makeshift and unhandy. Milking parlors are wonderful for milking, but were never made to check cows for preg-

nancy, breed cows, or blood test in. Of course, those things can be done, but not only are they dangerous for man and cow, but the work is done haphazardly and takes much longer to do.

If you are thinking of going to loose or free stall-type housing, please... for your own sake and the sake of your cows... think about a hospital area before the first concrete is poured. Such an area should be arranged so that cattle can be cut out of the milking line and run in after milking, but should be able to be closed off from the milking area. It should be able to be heated to protect seriously-ill animals, but also have fans to cool it when necessary. It should be arranged so that the breeder or veterinarian can enter from an outside door without going through the milking parlor. Have you ever tried to milk cows when a veterinarian is walking around in front of them?

Hot and cold water should be available in the hospital area or near it. I would say one stanchion for every ten cows should be enough, and either box stall space, or space that could be converted to box stall space for one or two cows for every thirty cows in the herd. A proper hospital area should have a box or barrel for waste and throw-away material. There should be a place in this area for medicines and breeding and health records. A few rope halters should be available on any farm, but when loose housing is used they are absolutely essential. Most dairy farmers neglect the use of the halter, and might well observe the way their neighbors who own beef cattle use them.

Cows should be able to leave the area and go directly to the loafing or stall area, and more cows brought in from the parlor without mixing.

Cost Comparative

You may say that the above ideas are going to cost too much. The cost will be small compared to the loss you can have in cows not properly cared for. No veterinarian can do a proper job of diagnosing or treating a cow when she is not properly confined, and few have the time to stand around or spend a half hour trying to help you catch a cow that needs only a five-minute job done on her. Today

(Continued on next page)

American Agriculturist, June, 1966



many veterinarians charge on a time basis; without proper handling facilities you are not only paying more per cow but you are receiving a poorer job done on each cow. Have you ever thought what a veterinarian goes through trying to replace a prolapsed uterus (whethers) in a shed at ten degrees above zero? If you don't feel sorry for the veterinarian, at least have a little compassion for the cow.

Not Cheap

At one time loose housing was supposed to be the "cheap" way to house cattle. I understand that people who know now claim that if done properly a free stall setup with milk parlor, etc. costs as much to build and equip properly as a conventional barn. Don't change your mind and not go to loose housing just because of tales that it's too hard to do things like pregnancy checks, breeding, etc. If you plan ahead you can build a setup that with wise management will make these things almost as easy to do as in any barn. By the time you eliminate the veterinary work caused by injuries and foot troubles of the conventional barn you may find your veterinary bill smaller than before.

Loose housing or conventional, here's wishing you good luck on your new barn. May the long overdue milk price adjustment not be a flash in the pan, but a long-time improvement in conditions for the dairy farmer!

DAIRY CHORE COMPARISON

by Eddy LaDue and C.D. Kearn*

THE time-honored method of caring for dairy cows is to have a stanchion or tie-stall barn with a barn cleaner; use bucket milkers and a milk-transfer system; feed hay, grain and silage to the cows while in the stalls. A more recently-developed system is to have cows loose with free stalls; milk them in groups using a herringbone parlor; feed them roughage in the form of silage in a bunk . . . and grain either in the parlor or in the bunk, or both.

In 1965, information was collected from 17 New York farms with the newly-developed system . . . all that could be found in the State that had been operating long enough to provide reasonably reliable information. These farms varied in size from 42 to 200 cows; they averaged 97.

The milk production averaged 11,700 pounds per cow, which is excellent considering the fact that several of the farmers had made large increases in herd size, and many had moved into new barns during the year for which production data was collected.

Comparison Base

As a basis of comparison, the County Extension Agents in each of the counties where one of the herds with the new system was

* Cornell University Department of Agricultural Economics

found were asked to supply the name of the "dairyman with approximately the same size herd, but with a conventional barn, whom you consider to be the most efficient. This farmer should have a regular stanchion or stall barn, and feed hay and silage. He may have a dumping station and bulk tank, but not a milking parlor or an around-the-barn pipeline."

The county agent was further guided in his selection by the following comments in the letter to him: "It is felt by many that only efficient dairymen who are good managers will have free stalls, herringbone-parlors, high-silage systems, thus we want the dairymen with conventional facilities which are used as a comparison to be as good or better managers than those with the new system."

The county agents were not able to get completely comparable farms . . . for instance, the farms selected were not quite as large . . . but they provided the names of some good dairymen. These dairymen had herds ranging from 41 to 108 cows. They had an average of 77 cows per farm. Their average production per cow was 12,500 pounds of milk.

Although there were several objectives in studying the two groups of farms, the principal one was to learn whether or not the new sys-

tem did indeed enable greater efficiency of handling cows.

The variation in labor requirement per cow per year was great among both groups of farmers. It ranged from 28 to 62 hours per cow for the farmers with the new system and 47 to 113 hours per cow for farmers with the conventional dairy chore system.

The average for the farmers with the new system was 43 hours per cow; the "as good or better managers" of the conventional dairy farms spent an average of 76 hours per cow. Although data are not available for the average dairyman in New York, it is probable that he spends 90 to 100 hours per cow.

The difference in labor efficiency as measured by output per man hour is, of course, about equally striking. The average dairyman in New York State probably produces 95 pounds of milk per hour spent directly in caring for his cows.

The "efficient" conventional dairymen in this study produced 164 pounds of milk per hour of labor. Under the new system an average 272 pounds of milk was produced per hour of labor. One farmer with the new system produced 418 pounds of milk per man hour spent on cows!

Not only do farmers with this new system produce more milk per hour, they do it with less physical strain. This system requires less back work than conventional systems.



Mr. and Mrs. George M. Knight, Jr., and children George III, and Cindy are shown with Pearl Ivanhoe Comet, their 1966 Pennsylvania Farm Show Senior and Grand Champion Holstein cow, who recorded a 350 day record of 27,006 lbs. of milk and 1,179 lbs. fat. The Knights maintain approximately 200 head of registered stock at Spring Valley Farm. All calves are raised on Wayne Calfinp and the milking ration is Wayne 32% Dairy Mixer, corn silage and grain. Very little hay is included in the ration.

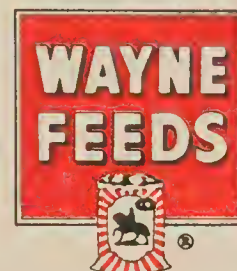


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Grange Position on:

CLASS I BASE PLANS

TWO MEMBERS of the New York State Grange, both dairy farmers, have had key roles in developing the opportunity for Federal Order Market dairymen

to consider two-price plans for milk specifically adapted to their market conditions.

Allan LaMotte of R.D. 2, Freeville, was a member of the Tomp-

kins County Pomona Grange Committee which lit the fire originally for two-price enabling legislation. G. LaRue Sears, Belmont, is chairman of the New York State Grange Dairy Committee which has led discussion of the plan. Both took part in person in helping to get the legislation through the Congress.

We asked these men to reflect the current thinking of the Grange on the two-price plan. Next month we'll print Mr. LaMotte's statement; in this issue Mr. Sears takes his turn at bat, as follows:

Grange members are proud of the fact they were helpful in getting this legislation. We know we were 100 percent right in working for it. It will give dairymen the right

to do something about adjusting their business to their particular economic situation. It can be put into effect on a market-wide basis or on an individual cooperative basis. Whether or not we in the New York-New Jersey market take advantage of this opportunity, those under some Federal Milk Orders will. The Puget Sound area has already started to set up such a program.

Studied Carefully

We did not work for this legislation blindly. We studied this way of selling milk in several markets where it was being used before we gave it full support. It was perfectly legal to use this system under state orders, and 39 state orders were using it.

Almost without exception, where the base surplus plan of selling milk was used the producers and the co-ops were well satisfied and enthusiastic about it, and the consumers were also satisfied. Opposition to this way of selling milk comes from those who are not using it . . . there seems to be none from those who are . . . and some have gone so far as to say we are stupid not to sell our milk this way.

The base surplus plan of selling milk is a business management tool. Like snowflakes and fingerprints, it can be just a little different for everyone. It is not production control, since anyone can produce all the milk he cares to any month of the year. But after his base is determined, if he puts on an additional 20 to 100 cows he will have to take the manufactured milk price for milk produced in excess of his base. This may be good business for him, but he will not lower every other dairyman's price.

There will, we expect, be ways to earn base, or base can be purchased. The fact that the base milk will be all milk above the lowest classification plus a reserve, and blended to get base price, will tend to keep bases from costing too much. Due to changing occupations, health, and accidents, there should always be bases available.

No Win

As we of the Grange look at it, there is no way to win with our present method of pricing and for these reasons: At present when only 50 percent of our milk is in Class I, real honest cost of production cannot be returned to producers. So, with rising costs, the only answer is to try to produce enough gross income to pay the bills for fixed costs and let upkeep of buildings and interest on investment just be forgotten. Eventually this catches up with many, as is proven by the great number of farm auctions.

We have had it preached to us for some time that to keep costs down and compete we must run our farms and equipment to capacity. Quite a share of oversupply comes from this.

Then, those operating milk plants think they should run their plants to capacity to make them pay out. So they encourage dairy-

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men to produce excess milk. If we cannot produce enough in our milkshed to keep the plants running at near capacity they can take milk from our Order 2 producers and put it into these manufacturing plants, bring in Class I milk from other areas and sell it as Class I, and keep our utilization rate low. There is nothing illegal about this practice.

Many dairymen have wondered why, with all the reports of decreased production and some increase in consumption of Class I milk, the utilization rate has stayed so low . . . 49.9 percent in February 1966. Class III milk plus transportation just cannot economically be brought into our market, but Class I can.

When we have this oversupply in a market it keeps our Class I price low, and the consumer has cheap milk. Really? The government buys these excess milk products with taxpayers' money. It is said that for every dollar we get from the Federal Government we in New York State pay \$3 in taxes. So the one cent per quart the consumer saves on the price of milk might cost him three cents in taxes.

Other Side

Now, let's look at the other side of the coin. Under the base surplus plan of selling milk, each dairyman will have his share of the Class I market, also Class II, fluid skim milk, and a reserve assigned to him as his base, and this will be blended to get his base price. Some of the reserve will only bring the Class III price, but all the excess or manufactured milk will bring manufacturing price.

He can produce all or as little of the excess milk as he wants and still get the top price for his base milk. Thus he can tailor his particular setup to his most economical rate of production.

Some might want to cut down on feed on some cows; some might want to add a few cows to balance labor supply. Those who can increase production without increasing fixed costs can make money as long as the manufacturing price is higher than variable costs. But whatever is done will not throw a neighbor's operation out of balance.

Under the base surplus plan, Class I will not come into the market without a base. Some of the manufacturing plants will not be able to run at capacity unless milk for manufacturing brings a high enough price so a dairyman can afford to produce it by blending this price with his base price. This, of course, is one of the reasons for strong, well-financed opposition to the plan from those whose major interests lie in manufactured products.

What every dairyman needs to do is more of his own thinking and figuring. Then, if a carload or two of dairymen from each milk-producing county would take a little trip to some of the markets that are using this system, as I have, I believe they would return home just as much in favor of the plan as is the Grange.

As near as I can find out, every

market using this plan has stabilized the Class I price the same the year around, usually higher than in this market, and with a much higher net return to dairymen.

We have not yet found any consumers who do not want farmers to have fair prices for their products. However, when the retail price is raised under the pretext that the farmer has to have more money, the consumer should be informed as to how much of that raise the farmer gets. The facts should be explained in the same terms to both consumer and producer.

It's misleading when it is said the farmer got a twenty-two cent raise and the consumer was raised one cent per quart. But when we say the consumer was raised one

cent per quart and the farmer one-half cent it sounds different. Or when we say the farmer was raised twenty-two cents per cwt. and the consumer forty-seven cents per cwt. the consumer then knows what happened to the rest of the raise.

As of this writing, the Base Plan Study Committee has made a thorough study, and finds that the good points outweigh the bad. I hope this means we will have a proposal fair to everybody, to producers, co-ops, dealers and consumers, with recommendations that will be tailored to our particular market.

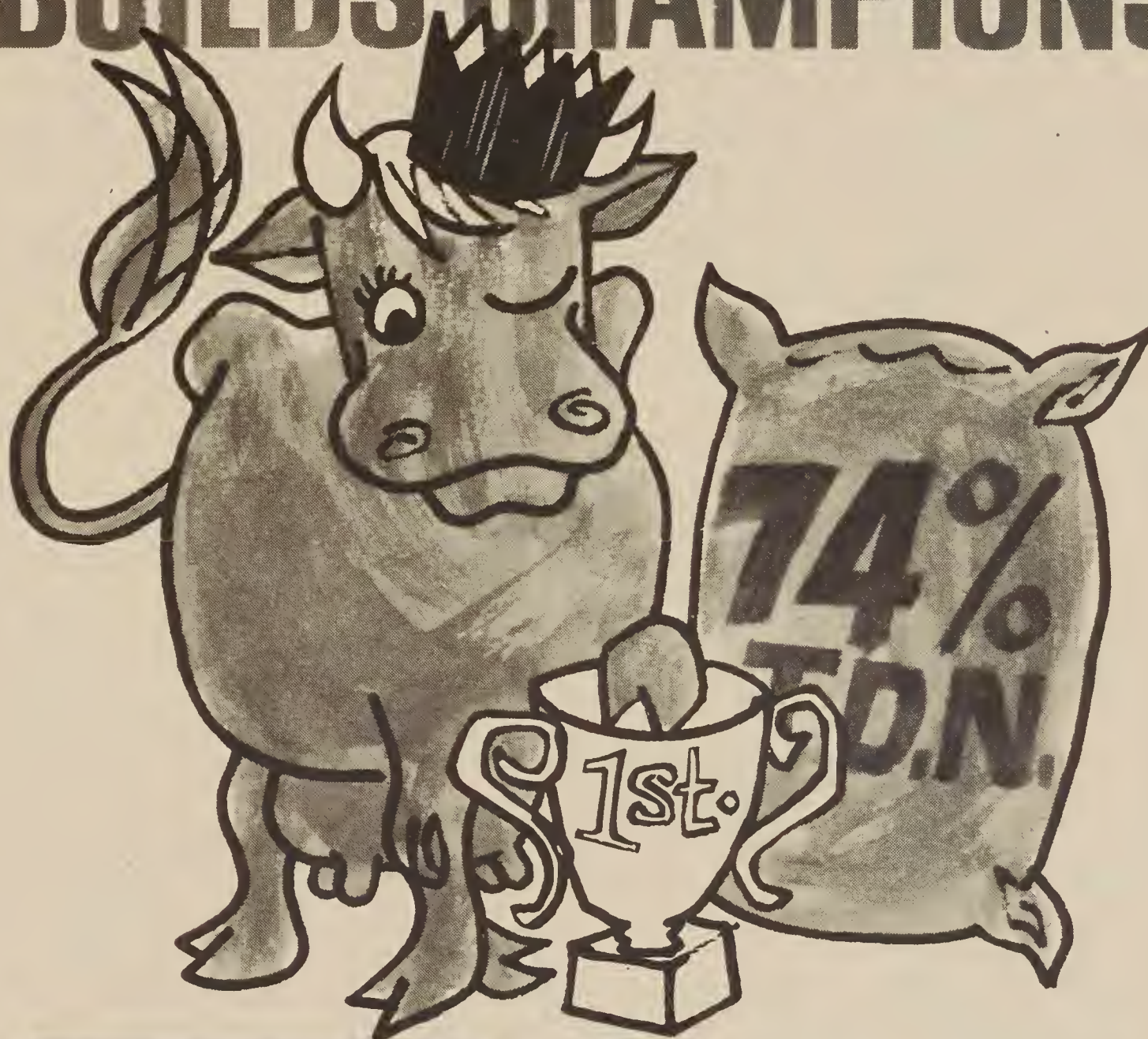
If we have a hearing, and I expect we will, I know the recommendations for the referendum will be good. What the government

puts in the referendum may be a little different than what we recommend. So you owe it to your family, to yourself, and your business, as well as to consumers and co-ops, to be able to vote intelligently.

Don't let anybody convince you we do not need this now. While the market nationwide is a little tight, and the price a little better, is one of the best times to make the change. It can be done with less inconvenience to everybody.

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FARM DOLLAR GUIDE

BLOAT can be minimized by feeding hay liberally before turning on pasture with high bloat potential, by green-chopping rather than pasturing, by the use of antibiotics (check with vet), and by anti-foaming agents such as soybean oil mixed with grain or on top of greenchopped forage. Latest bloat preventive discovered at Kansas State University is called Poloxalene, and marketed under trade name "Bloat Guard."

SPRAY NOZZLE TIPS used for weed control should be replaced after being used on 100 acres ... 400 acres if 4 rows are covered at a time. Wearing may result in increased volume sufficient to damage crops or increase residue problem.

FARMERS 72 YEARS OR OLDER are now eligible for a \$35-a-month pension from Social Security even though they have never been covered and have made no payments. Contact nearest Social Security office for details.

GRAIN FREIGHT RATE hassle, as of early May, is right back where it all started. Railroads have withdrawn proposals for rate changes that would have lowered total freight bill on grain shipped to Northeast. New York and Pennsylvania farmers have especially important stake in keeping question open with railroads and Interstate Commerce Commission.

FLY CONTROL methods recommended in dairy barns include Cygon (dimethoate) as residual spray, baited ribbons hung from ceiling, vaporizer strips, and dry or liquid scatter baits. Face fly can be licked with daily spray of Vapona plus Ciodrin.

OAT SILAGE is usually either sworn by or sworn at by dairymen. Secret of success is to ensile between time head emerges from boot and the early dough stage ... this may be only a few days. Done right, ensiling oats pays off with good summer feed, more TDN per acre than with grain, and a better stand of the hay crop seeding.

CROPLAND ADJUSTMENT PROGRAM is far behind goal of 8 million acres per year for 5 years. It's estimated that 3 million acres may be the top for 1965. We hear that Program is most popular with small farmers.

The Song of the Lazy Farmer

Mirandy isn't satisfied, when summer comes, to stay inside; she interrupts me at my toil and makes me putter with the soil in which her



blooms and gardens grow. It must be fertilized just so and pulverized all nice and fine without a weed all down the line. Mirandy says this place of ours must just be covered o'er with flow'rs and have a garden twice as good as any in the neighborhood; she says we've got to have some pride about the way things look outside and get a reputation for producing melons by the score.

If I had nothing else to do, I s'pose I could feel that way too, but how am I to get my rest if I must fuss about each pest that might attack her irises or choke out all the radishes? It isn't beans for which I wish, I'd rather catch a mess of fish, and turnips just don't do for me as much as noontime naps, by gee. For beauty, I would rather lie and watch the clouds go drifting by; along toward sunset when the light reflects from them in colors bright, they're prettier than any flow'r and don't need hoeing by the hour.

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VEGETABLES



Nematode Resistant — A new potato variety carrying resistance to the golden nematode has been developed by Cornell University scientists. It was named "Peconic" after the Peconic River on Long Island, where the golden nematode first became a problem in the early 1940's.

Chosen from among 30,000 seedlings, Peconic was field-tested extensively for five years on Long Island and in upstate areas of New York. Seed for general use will not be available until 1968, according to the researchers.

Herbicide Thickener — A new economical thickener for herbicide sprays, "Vistik," has been announced by the Cellulose & Protein Products Department of Hercules Powder Company, Wilmington, Delaware. Extensive tests have shown that Vistik reduces drift, and increases the effectiveness of sprays. It can be used in conventional spray equipment.

Hybrid Kraut Cabbage — King Cole, the hybrid variety produced by Ferry Morse Seed Company, is meeting with acclaim from both growers and processors, the latter because they experienced relatively little waste.

The variety was developed orig-

inally for fresh market use, but proved adaptable for kraut production as well. It's an early-season variety and produces an average head weighing as much or slightly more than Glory or Glory 61 when harvested in early October. When harvest is postponed to November, the heads split in the trials.

Control Leafhoppers — U.S.D.A. approval has been given for the use of Thimet 10-G systemic insecticide in the northeastern United States to control six-spotted leafhoppers... and thus reduce the incidence of lettuce yellows spread by these insects. Thimet should be applied at the rate of 10 pounds per acre in the fertilizer band on one or both sides of the row at seeding time, or when the lettuce plants are transplanted in the field.

Disease-Resistant — Varieties of onions resistant to fusarium basal rot have been developed in field experiments. The best of these varieties (under New York conditions) are Elba Globe and Iowa Globe 44, say Cornell specialists.

CA for Vegetables — Great interest is being generated in the idea of using CA (controlled atmosphere) storage for vegetables. There has been a steady development of new storages for potatoes and onions, two leading vegetable crops in New York State, and recent interest in storage of carrots and cabbage. Studies are continuing to find the best atmosphere for various commodities.

Treated cloth, placed around a plant, is covered lightly with soil.

WEED SHROUD



LOOSELY-woven cloth treated with an effective weed killer may prove to be the safest and most convenient way to apply herbicides to small garden plots, greenhouses and nurseries... and for commercial vegetable growers.

Developed by ARS plant physiologist L.L. Danielson at Beltsville, Maryland, this method of herbicide application is much simpler than the usual spray method. To control weeds, you merely cover the area to be treated with the herbicidal cloth.

Although the cloth is not on the market, manufacturers are interested and are awaiting further tests on its effectiveness, economy, and safety for general use. Prospects look good. Danielson's field and greenhouse studies have shown that the cloth works with 14 differ-

ent herbicides... indicating that it will be possible to treat the cloth with specific herbicides at proper rates for specific purposes.

The experimental cloth should eliminate one of the problems of spraying small areas... applying too much or too little herbicide. Also eliminated... the danger of accidental poisoning that exists with herbicides in their conventional liquid form, and the problem of spray drift, which can damage nearby flowers, trees, and shrubs.

For successful weed control, the herbicide-treated cloth is cut to fit the area to be treated, then put in place. The edges are anchored, or the cloth is covered entirely with a thin layer of soil. Since the cloth decomposes before the end of the growing season, it does not interfere with tillage in succeeding cropping seasons.

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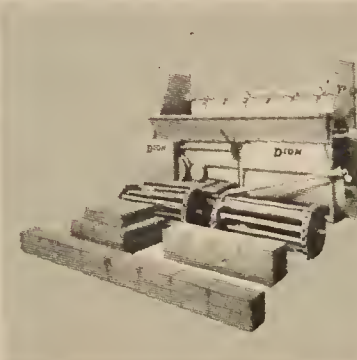
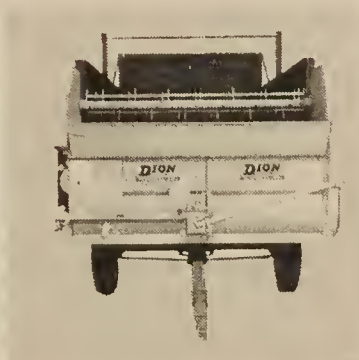
A larger diameter auger is supplied as cross conveyor, insuring positive side unloading. Wear, maintenance and adjustment are reduced to a minimum.

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The Dion Self-Unloading Forage Box can be equipped with right or left side delivery to suit your special needs. Standard equipment includes an extra clutch controlling the beaters.

Hardware Kit

Kit and plans for building the box are available for even greater economy. Standard sizes of lumber are used. The front end is supplied completely assembled, greased and factory run-in for long, trouble free operation.



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**Food For
The Spirit**



by Robert Clingan

THE WOODPECKER IN YOUR LIFE

Dr. John Skogland of Colgate Rochester Divinity School says that the role of the Christian in the world of today is neither that of the hawk nor the dove; rather it is that of the woodpecker. The woodpecker bores beneath the surface and removes the worm that, un-found and undestroyed, would take the tree's life. It leaves its scar, but it saves the tree.

Without taking issue with Dr. Skogland, why not search for personal application of "the principle of the woodpecker" in our own lives? Perhaps each of us is a tree badly in need of a woodpecker.

It may very well be that the criticism we resent is the kind of thing a woodpecker does to a tree . . . and for a tree. If our faults go unnoticed by ourselves, if we became too careless and indifferent, these little things a critic points out could trip us up and prove our undoing.

Yet, when anyone dares to name our faults or identify our weaknesses, how hard it is for us to accept these criticisms graciously and constructively. Most of us are far more likely to find ourselves saying: "What does that person have against me?" "What did I ever do to him?" "Why has he noticed my faults and overlooked all the good things I do so very well?" "Why is he trying to hurt me?"

We may even assume the offensive and look for his faults, remind him of his failures, or decide that we are going to find some way to punish him for his disloyalty to what we had thought was a friendship.

This attitude on our part of throwing up a defensive screen around our wounded egos is only natural. We don't want flaws in our character, personality, or leadership known or pointed out. Yet this person who irritates us no end with his criticism may be the very person we need. He may be the means of saving us from ourselves . . . and the "worms" within our personalities that could destroy us. The human woodpeckers may actually extend our lives of useful service.

God bless the "ornery-acting," peace-disturbing, scar-producing woodpeckers of both the forest and the human race!



DAIRY FACTS



by Dr. J. P. Everett
Mgr., Purina Dairy Research

Almost anyone with a textbook and a pencil can calculate the effect of reduced fiber on TDN in a milking ration, but the critical test is in controlled experiments.

Two fiber level experiments conducted at the Purina Dairy Research Center illustrate this.

Holsteins fed an experimental ration containing 4.7% fiber produced 17,363 lbs. milk in 305 days while those fed an 8.8% fiber ration averaged 15,141 lbs. milk.

In a second experiment, cows fed a 5% fiber experimental ration produced 16,471 lbs. milk. The controls, fed an 8.0% fiber ration, produced 12,968 lbs. milk.

Moisture Level Studies

Other studies with our research herd indicate that a reduced moisture level results in increased palatability. Our Palatability Dairy Experiment #76 was a preference trial in which a milking ration with a normal moisture level was compared to a milking ration with reduced moisture.

Consumption of the ration with the reduced moisture level was 3.6 lbs. per cow per day greater. You can see that a slight reduction in fiber and moisture makes a big difference.

As a result of this research, we are pleased to announce these new rations, developed especially for New York dairymen.

New Purina Cow Chow Special with increased energy, reduced moisture and a guaranteed fiber level of not more than 5%. You can obtain Cow Chow Special in both coarse and Checker forms.

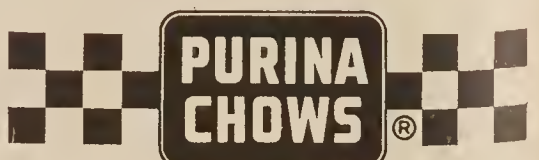
New Purina Milk Chow E.N.T., a 16% coarse ration featuring increased energy and a fiber level of not more than 7.5%.

Because of the optimistic outlook for milk prices in New York, the introduction of these new rations is especially timely.

Check with your Purina dealer soon. Ask him, too, about new **Purina Calf Growena**, another new ration for New York only. This is an economical 16% coarse ration for feeding calves from 3 to 6 months . . . getting them to breeding weight fast.

You can get all three of these new rations in your area at the sign of the familiar red and white Checkerboard.

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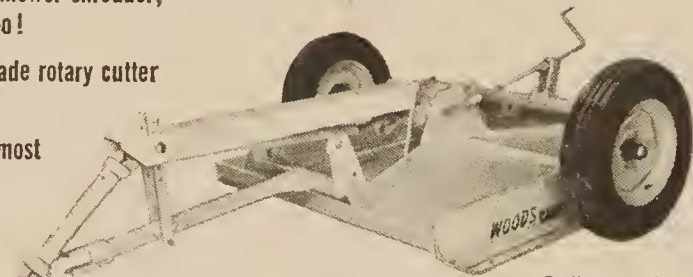
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... because a Cadet 60 is a mower-shredder, plus it converts to a hay mower too!

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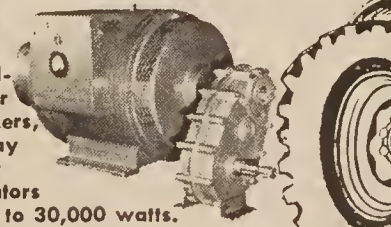
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CONGRATULATIONS, PHIL!

New Jersey Secretary of Agriculture Phillip Alampi . . . a member of the American Agriculturist Foundation . . . will be honored by his state June 9. He has been chosen as New Jersey's Outstanding Citizen, the oldest and most unique honor that can be accorded a citizen of that state. U.S. Secretary of Agriculture Orville L. Freeman will give the luncheon address, and tribute will also be paid by Governor Richard J. Hughes.



Phil Alampi

Phil Alampi graduated from Rutgers University and for ten years taught vocational agriculture and coached athletics at Woodstown (New Jersey) High School. Then in 1946 he inaugurated a farm radio program on Station WABC in New York City; eight years later he and Mrs. Alampi conducted farm and garden radio and television programs over WNBC.

Appointed Secretary of Agriculture for the State of New Jersey in 1956, he has devoted himself to agricultural and educational interests ever since. The American Farm Bureau Federation recognized his work by an award for "the most outstanding interpretation of agriculture to the American public."

It is difficult to see how he finds time to keep up with the innumerable organizations in which he holds office . . . but he does it somehow. Rutgers University conferred the University Award on him in 1958, and in 1962 chose him for the Rutgers University Alumni Award for Distinguished Service to Education. Not to be outdone, the National Association of Television-Radio Farm Directors got into the picture with the presentation of the 1963 Meritorious Service Award; he's a past-president of the Association.

We're proud of Phil Alampi, proud to be associated with him, and wish him continued success and happiness in all his undertakings!

and many of them began paying a bonus of 10 cents a hundred for bulk milk in the early winter of '66. It has apparently speeded up the shift to bulk in that area of New York.

Tomato Records — Pennsylvania growers of tomatoes in 1966 have some real records to try to beat. For example, in 1965, 20 or more tons of tomatoes per acre were harvested for processing by 64 growers in Pennsylvania, which qualified each to receive the Master Tomato Growers Award. One grower, Mr. Celeste Lupini, Mifflinville, averaged 35.65 tons per acre on 28 acres; two of his plantings averaged over 40 tons per acre!

New Courses — Two five-week, non-credit occupational training programs are planned at the Agricultural and Technical College at Delhi, New York. The first course, "Dairy Testing-Field Service" pre-

pares young men for jobs as laboratory milk testers, field servicemen, or qualified bulk tank drivers. The course starts June 27 through July 30, 6 hours per day. Cost . . . tuition and fees . . . is \$69.00, and there will be \$30 per week for room, board and laundry.

The second course, "Dairy Bacteriology and Mojonner Testing" starts August 1 and continues until September 3. It also is 6 hours per day, 6 days per week, class and laboratory. Employment opportunities available to graduates are "Licensed Bacteriologists for Milk and Cream" and "Mojonnier Tester Operators." The costs are \$69.40; room, board and laundry \$150 (\$30 per week).

Applicants must be at least 18 years of age and physically fit; enrollment will be limited to 16 students per course.

Cow Belles — Officers of the New York State Cow Belles (wives of New York State Beef Cattlemen

Association members) for the coming year are: Mrs. Dale Werth, Cohocton, president; Mrs. Merritt Howard, Forestville, vice president; Mrs. Clayton Taylor, Lawtons, secretary-treasurer, and Mrs. Jay Silsby, Gasport, assistant secretary.

100th Anniversary — The National Grange celebrates its 100th annual session this fall in Minneapolis, Minnesota. This is the first 100th annual convention of a nationwide general farm group.

NEED LICENSE

Beginning July 1, dealers who buy or sell sheep or swine in New Jersey must be licensed by the State Department of Agriculture. This supplements the Department of Agriculture's livestock health programs, which requires dealers to keep records of all transactions.

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BRIEFS

Dairy Records — Mrs. June Sekoll of Greenwood, New York, wrote American Agriculturist-Rural New Yorker recently with an account of how she and her husband keep records on their dairy herd. They keep track of milk weight produced by every cow each day, note when cows are bred, and record freshening dates. Such information, plus lots more, provide the Sekolls with the information needed for good dairy management decisions.

Mrs. Sekoll reports that the Grandview Dairy of Arkport offered a 10 cent premium for bulk milk in the fall of '65. This offered dairymen the opportunity to approach other dealers in the area,

Livestock Mart



ANGUS

WYE PLANTATION FROZEN Angus Semen is available from P.R.I. proven sires officially gaining 4 pounds and more per day or whose 365 day weights are 1200 pounds and over. Wye Plantation, Queenstown, Maryland 21658. Telephones: 301-827-2041; 301-827-8143.

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REGISTERED ANGUS COWS with calves by Ankonian Eric, grandson Eileenmere 999-35 and 1032, also bulls. Reasonable. Joel Nystrom, Agridor Farm, Skillman, N. J. (201)359-5990.

ANGUS COW HERD, 22 head, spring calves at side; bred back to Registered bull, Iroquois Farm, Cooperstown, N. Y. (607) LH-7-9901.

BRED HEIFERS, For Sale sixteen carefully selected heifers of outstanding quality; Eileenmere, Moles Hill and Bandolier breeding. These heifers are bred to a magnificent, prize winning son of Evas Bardoliermere. He, a prepotent son of Evas Bandolier Lad, is one of the greatest breeding and most popular bulls standing in this country today. Come and see these heifers and, incidentally Marylands Eastern Shore. A warm welcome will be awaiting you and no one will try to high pressure you into buying. The price is \$350 each. Our herd has been accredited for 27 years. T. Raymond Brockson, Fair Hope Farm, Chestertown, R3, Md. Telephone (301)778-3268.

BABY CHICKS

MARSHALL KIMBERCHICKS, Top quality eggs will always be in demand. The men who stay in the poultry business will be the ones who can produce highest quality eggs. Choose Kimberchicks for dependable high quality and profits by calling Marshall Brothers Hatchery, Ithaca, N. Y. AR 2-8616.

BABY CHICK BARGAINS: Rocks, Reds, Crosses, Heavy Assorted. Also Ducklings, Goslings, Turkey Poults, Free Catalog, Surplus Chick Co., Milesburg 4, Pa.

HI-PRODUCTION LAYERS, White Leghorn pullets \$26.50 per 100, R.I. Red pullets and Buff Sex Link pullets \$26.00—100. Broad-breasted Cornish Broiler Cross \$10. 100% guaranteed. Free catalog. Noll Farms, Kleinfeltersville, Penna.

"WELP-LINE" 937 LEGHORNS, Random Sample Tests prove their profit superiority. Top efficiency. Also California-Gray's, Lee's White Rocks, New Hampshires, Farmer's Reds, Parks Barred Rocks, White Pekin Ducklings. It will pay you to send for our free literature. Rainbow Hatchery, New Washington, Ohio.

QUALITY CHICKS, WHITE Rocks, Barred Rocks, New Hampshires, straight run 100—\$10.75. Pullets 100—\$18.95. Leghorn Pullets 100—\$25.50. Our choice mixed heavies straights 100—\$8.75. 100 Special Guaranteed Heavies \$5.50, shipped COD. White Pekin Ducklings 15 \$5.25. Superior Chicks, Box 5, Bucyrus, Ohio.

MEADOW VIEW CHICKS — Shaver Leghorns, Rapp Leghorns, Shaver Sex-links, Harco Sex-links, Lawton Buffs, Cornish Cross meat birds. Also started pullets, Henry M. Fryer, Greenwich, N. Y. 12834, Phone 518-692-7104.

FOR OVER 40 YEARS, Sunnysbrook Chicks have been making extra egg profits for thousands of customers. Bred from top bloodlines. Leghorns, Sex Links, Reds, DeKalb, other breeds. Hatching all year. For meat, raise Vantress-White Rock Crosses. Down-to-earth prices. Sunnysbrook Poultry Farms, Box 106, Hudson, N. Y. Ph: 518/828-1611.

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PROFIT POWERED Finest Strain Cross White Leghorns. Harco Reds, Lawton Buffs, Pullets, 30¢ each. Extra heavy breeds; Vantress, White Mountain, Silver Cross, straight run. 10¢ each. Prepaid insured delivery. Circular, Strickler Farms, Sheridan 3, Pa.

ROCKS, REDS, CORNISH \$3.89—100. Large White Rocks \$5.45. Other breeds \$1.45 to \$5.45. Pullets \$9.99. Before you buy, compare our prices. Guaranteed savings. Customers choice of breeds shown in terrific big free catalog. Shipment from hatchery your section. Atlas Chicks, Home Office 2651 Chouteau, St. Louis 3, Mo.

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PEACOCKS-PEAHENS, EARLY Hatch 1965 in Blue, White, Black Shouldered varieties \$30.00 pair; 1964 hatch \$45.00 pair; 1963 hatch \$60.00 pair. Are breeders will be in full plumage spring 1966. Satisfaction assured. Maple Lane Farms, A. H. Chambers, 244 Clinton Ave., Kingston, N. Y.

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for farm building sanitation"

American Agriculturist, June, 1966

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Dates to Remember

June 12-15 - Neppco Egg Marketing School, Rutgers University, New Brunswick, N.J.

June 16-18 - National Chicken Cooking Contest and annual Delmarva Chicken Festival, Pocomoke City, Md.

June 18 - Spring Meeting, New Hampshire-Vermont Christmas Tree Association, Lyndonville, Vermont.

June 22-23 - Pennsylvania Poultry Federation annual conference, Nittany Lion Inn, Pennsylvania State University, University Park.

June 28-July 1 - 56th annual Professional Improvement Conference of Teachers of Agriculture, and Meeting of Association of Teachers of Agriculture of New York, at Agricultural & Technical College, Alfred, N.Y.

EVERY MONTH is Dairy Month

says who?

The dairymen and all their families—the farmers who use their modern techniques and superior equipment to produce increasing amounts of good farm milk all year round, even with fewer cows. (Like the more than 15,000 producers who belong to the Dairymen's League Cooperative Association and its eleven affiliated co-ops right now.)

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The Dairy route salesmen and lab technicians, salesmen and drivers, office girls and bookkeepers who help market the milk—and all their families.

And the *field men* and *dairy technicians, economists* and other staff people of the Dairymen's League and other co-ops.

The *bankers* who lend money, and the *suppliers* of goods, equipment, and services to dairymen—and all their families. The *storekeepers* and *clerks*—and their families, too.

almost everybody!

Including the *government people* who assess and collect the dairymen's taxes, and administer the big Milk Orders, and the *lawmakers*, as well as the *educators* who teach vocational agriculture and provide extension services to New York State's largest single industry—and all their families.

And the *researchers* and *economists* who measure the billion-dollar value of the dairy industry to New York State, as well as the *cartoonists* who draw pictures about the vastness of it all, and the *editors* and *reporters* who write or talk or comment about special months, or business, or local news—and all their families.

And the *cooks* who provide all sorts of gourmet or just plain good family fare using milk products, and the *dietitians* who point out that milk really is the most nearly perfect single food—your best food buy under any of many trusted brand names, including Dairy Lea—and all their families.

who else?

Pussy cats, of course.

THE DAIRYMEN'S LEAGUE COOPERATIVE ASSOCIATION, INC.





IT'S STRAWBERRY TIME!

by Alberta D. Shackelton

MAKE JUNE a "red letter" month by serving juicy, ripe strawberries often, and preserve some for later use. Strawberries are a fragile fruit; handle carefully and use them promptly.



STRAWBERRIES IN PINEAPPLE SHELL

- 1 large ripe pineapple
- 1 quart ripe strawberries
- Sugar
- 3/4 to 1 cup flaked coconut
- 1 cup heavy cream, whipped and sweetened

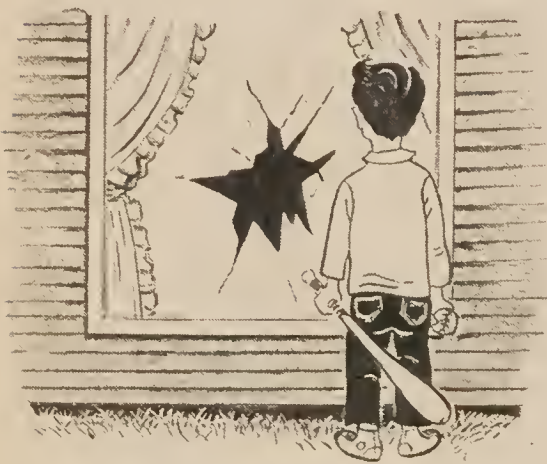
Wash and cut pineapple in half lengthwise, from the base through the leaves. Carefully cut out the pineapple from each half, leaving about 3/4 inch of shell. Reserve shells. Remove any core from pineapple and cut in small chunks. Combine pineapple and berries (cut in half if large), sprinkle with sugar and chill.

At serving time, fold in coconut and pile the fruit in shells. Top each half with whipped cream and garnish with a large strawberry cut in quarters (starting at pointed tip, cut not quite through to base) and a sprig of mint. Place shells on an attractive platter, facing in opposite directions, and transfer servings of fruit and cream to individual dessert plates.

STRAWBERRY MELON CUP

- 3 cups cantaloupe and honeydew balls
- 1 quart strawberries, sliced
- Ginger ale or carbonated grapefruit beverage
- Mint leaves

Alternate layers of melon balls and berries in sherbet glasses. Pour over about 1/4 to 1/3 cup of the ginger ale or grapefruit beverage. Garnish with a sprig of frosted mint (dip mint in egg white and then confectioners' sugar) or top



WINDOWS

by Queena D. Miller

Windows are for breathing on,
Or pressing noses to;
Or for raindrops sliding down,
Or just for looking through.

Windows are for standing by,
To wave a hand or call;
But not for throwing baseballs at!
No! Not for that at all!



with a scoop of lime sherbet.

SPRINGTIME SALAD

- Fresh pineapple slices, cored
- Avocado slices, peeled
- Sliced strawberries
- Greens

Place a pineapple slice on bed of crisp greens on salad plate. Arrange slices of avocado around edge and fill center with strawberry slices. Serve with Citrus Dressing (made by substituting fresh orange, lime, and lemon juice for vinegar in a French dressing recipe and slightly sweetened with confectioners' sugar). Canned pineapple slices may be used instead of fresh pineapple.

STRAWBERRY SALAD DRESSING

- 1 cup mayonnaise or salad dressing
- 1/2 cup heavy cream, whipped
- 3 to 4 tablespoons confectioners' sugar
- 1 cup crushed fresh strawberries

Combine mayonnaise with whipped cream and blend in sugar. Fold in crushed berries. Especially good served on combination fruit salads.

BERRIES WITH MOCK DEVONSHIRE CREAM

- 1 8-oz. package cream cheese
- 1 cup heavy cream
- 2 tablespoons confectioners' sugar
- Sweetened whole strawberries

Soften cream cheese, blend in cream and sugar, and beat with fork until fluffy. Pile in center of an attractive rimmed serving dish and surround with whole berries. To serve, spoon some of the

cream onto dessert plate and top with some of the berries, or reverse process and place berries on plate first. This cream is also good served with raspberries and peaches in season, or even with strawberry or raspberry jam on hot, rich baking powder biscuits or scones.

COCONUT CREAM STRAWBERRY PIE

- 1/3 cup sugar
- 1/2 cup flour
- 1/4 teaspoon salt
- 3 cups milk
- 2 egg yolks, lightly beaten
- 2 teaspoons vanilla extract
- 1 cup flaked coconut
- 1 tablespoon butter
- 1 pint strawberries
- 1 baked 9-inch pie shell
- 2 egg whites, unbeaten
- 1/2 cup sugar
- 1/8 teaspoon salt
- 3 tablespoons water
- 1/2 teaspoon vanilla
- 1/3 cup flaked coconut

Combine sugar, flour, and salt and add milk gradually, stirring until smooth. Cook over medium heat with constant stirring until thickened. Mix a small amount with egg yolks, then combine all, and cook a couple of minutes longer. Add coconut, butter and vanilla. Cool. Place 1 cup halved berries in pie shell and add filling.

Combine egg whites, sugar, salt and water in top of double boiler; beat with rotary beater over boiling water until mixture holds peaks. Add vanilla and pile lightly on filling. Sprinkle with coconut and decorate with remaining berries and a few leaves, if available.

Prolong the strawberry season by putting some of the rosy berries into jam. It will taste oh-so-good next winter!

Photo: Certo Fruit Pectin

Coconut Cream Strawberry Pie, garnished with whole berries, is pretty enough to serve for a very special occasion.

Photo: Baker's Angel Flake Coconut

STRAWBERRY PRESERVES

Wash and hull 2 quarts of firm, ripe strawberries and drop into boiling water for 2 minutes. Drain and combine with 4 cups sugar in a large kettle. Boil 2 minutes. Set aside until boiling stops, add 2 more cups sugar, and boil 5 minutes. Stir in 1 tablespoon lemon juice.

Pour mixture onto large platter and let stand overnight, covering lightly. Place in cold, sterile glasses or jars, seal, label and store. Makes about 3 pints.

Note: If you wish, you may skim out the berries in the morning, bring juice to a boil for several minutes to thicken, add berries, put into jars, and seal.

NO-COOK STRAWBERRY JAM

Thoroughly crush, one layer at a time, about 1 quart fully ripe strawberries. Measure 2 cups into a large bowl or pan. Add 4 cups (1-3/4 lbs.) sugar, mix well, and let stand.

Mix 3/4 cup water and 1 box powdered fruit pectin in a small saucepan, bring to a boil and boil 1 minute, stirring constantly. Stir into fruit mixture and continue stirring about 3 minutes. (There will be a few remaining sugar crystals.)

Quickly ladle into glasses and cover at once with tight lids. When jam is set (may take up to 24 hours), store in freezer. If jam will be used within 2 to 3 weeks, it may be kept in refrigerator. Makes about 6 medium (8 oz.) glasses.

American Agriculturist, June, 1966

WHAT TO PLANT

in Difficult Locations

by Nenetzin R. White

Probably the worst conditions for plants are too much shade, locations that are too wet, and areas that are too dry. There are, however, quite a few plants that will do well, or at least reasonably so, under these adverse circumstances. I think the best way to give you the names of these plants

is in list form, and you may want to put this with your garden books and other notes for future reference.

Most nurserymen can supply you with numerous suggestions for other unusual situations; if you will check with them first, you'll save yourself money and disappointment.

FOR WET LOCATIONS

Trees

Acer dasycarpum
Acer rubrum
Amelanchier canadensis
Nyssa sylvatica
Platanus occidentalis
Populus in variety

Quercus palustris
Salix in variety
Thuja occidentalis
Tilia americana
Tsuga canadensis
Ulmus americana

Shrubs

Aronia arbutifolia
Chionanthus virginicus
Clethra alnifolia
Cornus alba
Cornus amomum
Cornus stolonifera
Hypericum aureum
Ilex verticillata
Rosa lucida

Rosa palustris
Salix in variety
Spirea tomentosa
Viburnum americanum
Viburnum cassinoides
Viburnum dentatum
Viburnum lentago
Viburnum opulus

FOR DRY LOCATIONS

Trees

Acer campestre
Acer ginnala
Ailanthus glandulosa
Betula populifolia
Fraxinus lanceolata
Gleditsia varieties
Koeleruteria paniculata

Pinus strobus
Pinus sylvestris
Quercus coccinea
Quercus macrocarpa
Sophora japonica
Ulmus pumila

Shrubs

Acanthopanax pentaphyllum
Cornus paniculata
Eleagnus angustifolia
Juniperus chin. sargentii
Juniperus communis & varieties
Juniperus horiz. Bar Harbor
Juniperus horiz. douglasii
Ligustrum in variety
Lonicera tatarica varieties

Potentilla fruticosa
Prunus maritima
Rhamnus frangula
Rhus in variety
Robinia hispida
Rosa nitida
Rosa rugosa
Viburnum prunifolium

FOR SHADED LOCATIONS

Trees

Acer ginnala
Amelanchier canadensis
Chionanthus virginicus
Cornus florida & *rubra*
Halesia tetraptera

Ilex opaca
Magnolia glauca
Oxydendrum arboreum
Tsuga canadensis

Shrubs

Abelia grandiflora
Acanthopanax pentaphyllum
Aronia species
Berberis julianae
Calycanthus floridus
Cephalanthus occidentalis
Cercis canadensis
Cercis chinensis
Clethra alnifolia
Cornus mas
Diervilla sessilifolia
Hamamelis
Hydrangea arborescens grand.
Hydrangea quercifolia
Hypericum aureum
Kalmia

Leucothoe catesbaei
Ligustrum ibota regelianum
Lonicera fragrantissima
Lonicera morrowi
Mahonia aquifolium
Pieris japonica
Potentilla fruticosa
Rhododendron maximum
Rhodotypos kerrioides
Symphoricarpos
Taxus baccata repandens
Taxus cuspidata
Viburnum acerifolium
Viburnum lentago
Viburnum opulus
Viburnum prunifolium

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MORE PRIZES!

From FARMERS AND TRADERS LIFE INSURANCE CO.: 64-piece set of Syracuse China.

After our May issue went to press, we learned that several additional prizes would be awarded state winners in the American Agriculturist-New York State Grange Applesauce Cake Contest when the finals are held at Hamburg, N.Y., this fall. We know how excited you county winners must be at the prospect of taking home one of the marvelous grand prizes, as well as the many grocery prizes being given the top 10 state winners.

Another grand prize for the contest comes from Farmers and Traders Life Insurance Co. It is a 64-piece set of Syracuse China in the beautiful "Wedding Ring" pattern. This is a complete service for eight, and matchings for the china are guaranteed for at least 20 years.

Other prizes not announced in May are as follows, to each of the top 10 state winners:

From Cuba Cheese & Trading Co., Inc.: A 5-lb. New York State Cheddar Cheese.

From Western New York Apple Growers Assn., Inc.: A case of applesauce.



From Syracuse China Corp., to the No. 1 winner: A 16-piece starter set of Carefree True China, "Wayside" pattern.

Again, we would like to express our appreciation to each company participating in this contest. Your generous response to our request for prizes has been most encouraging.

DO YOU HAVE...

A recipe for Dundee cake? Mrs. Eleanor Schreiber, 1408 Richmond Rd., Staten Island, N. Y. 10304, says it is similar to one formerly made by Cushman's Bakery.

Pillsbury Bake-Off Cookbooks No. 1 and No. 3? This request comes from Mrs. John D. Rooney, 8 Heather Lane, Darien, Conn. 06820.

Any pieces of Royal Doulton English China, Grantham Pattern D5477? If so, please contact Mrs. Axel Madsen, Box 65, Southampton, Mass. 01073.

A recipe for an old fashioned soft pretzel? If so, will you share it with Mrs. Roy T. Hadesty, P.O. Box 115, Gordon, Pa. 17936.

Thanks!

In our February issue, Mrs. L. A. Hugunin of Cayuga, New York, asked for Buttermilk Soup, Pie, and Pudding recipes. In just a few weeks she received 58 recipes from seven states.

Mrs. Hugunin asks that we re-

lay her thanks to everyone who took time to write her and for the many recipes you sent.

NEW YORK EXPOSITION

It may seem like a long time to August 30 and the State Exposition, but Mrs. John Vandervort, Director of the Art and Home Center, and her staff have been working for weeks, making plans for the Community Service Awards Contest and the Home Arts and Crafts competitions.

Write today for the Women's Division Premium Book and entry blanks, and be sure to ask for the Community Service Awards entry form also. Do this at once because Community Service entries will not be accepted later than Friday, June 24. In the Home Arts and Crafts competition, entries will be accepted up to and including Tuesday, August 9.

Address your request to Art & Home Center, New York State Exposition, Syracuse, N.Y. 13209

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Judging by all the orders and enthusiastic letters that continue to pour in, Ed Eastman's great book, JOURNEY TO DAY BEFORE YESTERDAY, tops all of the fourteen wonderful books that he has written. One reader wrote:

"You can't turn the calendar back, but JOURNEY TO DAY BEFORE YESTERDAY comes the nearest to it of anything I have ever read."

"As I read this fascinating story of experiences that were so like my own when I was young, I did indeed forget where I was, 'escaped' for a little while from all the pressures and problems of these modern times, and traveled with Ed back to Day Before Yesterday when I was a boy."

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ED EASTMAN'S PAGE

IS CULTIVATION NECESSARY?

Like most other farm practices, cultivating has almost completely changed in recent years. One of my earliest memories is of riding a horse hitched to a one-horse cultivator which father had loaded with stones to make it dig deep, while he bore down with all his might on the handles. We know now, of course, that that kind of cultivating cut off many of the roots of the growing crops. Many a long June day have I walked miles upon miles with a one-horse cultivator, stopping once in a while to dump the dirt and stones out of my shoes and to take a look at the blooming countryside.

The one-horse cultivator was followed by a machine (on which the operator rode) hauled by two horses. No row crop was considered taken care of until it had been cultivated three or four times. Now the whole idea is to cut down labor, with not more than once over with the cultivator, if at all.

The chief purpose of cultivating was to kill weeds. Today chemical weed killers have pretty well solved the weed problem. There still remains the question, much debated, whether or not a light cultivation at least once is needed to loosen up soils inclined to pack, and to aerate them. It always seemed to me that you could almost see a crop jump after cultivating it . . . and I still believe it is good practice on many soils. What do you think?

"HELP FOR GOING TO COLLEGE"

On page 34 of the April issue of *American Agriculturist* I wrote an article entitled "Getting Ready for College," and suggested that Ithaca College would be glad to send, free of charge, a copy of my instruction sheets to students who are planning to go to college anywhere this fall, or to their parents. These papers were designed to help students make the great adjustment from home and high school to college dormitory and class room.

The papers include suggestions for helping young people with their many personal problems, and detailed instructions on how to study scientifically (including how

to make a daily time schedule) how to get interested in a subject, how to concentrate, how to take notes, and how to build and keep goals and ideals.

If you wish a set of these papers, address your request to Dean of Students, Ithaca College, Ithaca, New York, 14850

A PRESENT THAT FITS

What is more embarrassing than to make someone a present that they don't need nor want? Trying to be polite, they will say, "Thank you so much, this is just what I wanted." But you only have to look at their faces to know that you have wasted your money.

Because I have read so many enthusiastic letters that E. R. Eastman has received about his book "Journey to Day Before Yesterday," I have no hesitation whatever in recommending it as a present for Father's Day, for any birthday, for a graduating student, in fact for anyone who wants to relive the pleasant memories of their lives, or who wants to know and laugh about the "antics" and the "carryings on" of grandma and grandpa when they were young.

People write that they read the book sometimes two and three times, that they read it out loud to the family, that they keep it on the bedside stand and read some of the sketches to relax before going to sleep.

It is a beautifully-made book with nearly a hundred pictures of old-time scenes. Old or young, you will enjoy every word of it.

Copies will be mailed postpaid for \$5.95 each. (New York residents add 12¢ tax). Send check or money order to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York, 14850. M.E.R.



TODAY



Here hath been dawning another
blue day:

Think, wilt thou let it slip
useless away?

Out of Eternity this new day
was born;

Into Eternity, at night, will
return.

Behold it aforetime no eye
ever did;

So soon it forever from all
eyes is hid.

Here hath been dawning another
blue day:

Think, wilt thou let it slip
useless away?

By Thomas Carlyle

It seems to me that in this verse the great poet has a message for all of us. Yesterday is gone and we can do little about it . . . and we can't be sure about tomorrow. But we do have today . . . a precious gift direct from the hand of God.

In his poem, "The Village Blacksmith," Longfellow tells us how to live today:

Toiling . . . rejoicing . . . sorrowing
Onward through life he goes;
Each morning sees some task

begun,
Each evening sees it close;
Something attempted, something
done,
Has earned a night's repose.

DISHWASHING MACHINES SAVE LABOR

Ever since I was a small boy I have helped in the kitchen. There were four of us boys in the family and no girls, and it fell to my lot often to wash dishes . . . and sometimes to do some cooking. I still do. So I speak with some experience when I say that after having had a dishwasher for nine years, I think it is the most labor saving device of all the modern kitchen gadgets. Except when we have company there are only three of us in the family, and after the table is cleared I can rinse all the dishes and put them in the washer in eight minutes or less.

Perhaps best of all is the fact that a dishwasher can get the dishes cleaner from a bacteria standpoint than is possible by hand. In an experiment conducted by scientists in the U. S. Department of Agriculture at the experiment station at Beltsville, Maryland, it was found that the bacterial

count on dishes washed by the machine was only three tenths of one percent compared to 19 percent on dishes washed by hand.

If you are planning to buy a dishwasher, I suggest you check carefully with your home demonstration agent or with your State College of Home Economics. Be sure that your water pressure is adequate. About the worst fault of our machine is that it is noisy. If you buy one, inquire about noise. You can have a machine connected right into your sink, or there are portable ones available.

If a dishwasher is labor saving for even a small family, think what a Godsend it is for the woman who is tired out after getting a meal for a big family or for company. After putting away the food she can leave the kitchen, and anyone in the family can rinse the dishes and put them in the washer, press a button . . . and the job is done.

"THE YEAR

WITHOUT A SUMMER"

The Bible reminds us that there will always be a seed time and a harvest, but there must have been many of the early settlers in 1816 who lost faith in that promise. That year was long remembered as the year without a harvest, when it froze every month.

An early resident of Dryden, Tompkins County, New York, wrote a letter about that awful summer that is quoted in Goodrich's Centennial History of Dryden. He said, in part:

"The cold seasons of 1816-17 were times that tried men's souls. Corn was entirely cut off by the frosts. Wheat and other products were scarce and dear, and there was no money to buy with. One of my neighbor's boys told me that he lived three days on two cold potatoes. Another little girl said that she had nothing to eat for two days and was as weak as a little frog. The snows and frosts of those years have never been equalled for severity."

The situation then was much more difficult than it would be now because the farms were almost entirely self-sufficient. But the continuing drought of the last few years makes one realize that it is possible to have a drastic reduction in food production. In 1816 when the crops failed that was it! Today a surplus in the markets and in storage would carry us over . . . but for how long? Even if food was available we would need money to buy it!

Of course, we are not likely to have another season like the "Year without a summer." Nevertheless, the big city consumers are really never far from the "bottom of the barrel," which soon would be reached should anything happen to slow up or cripple food production and the transportation of it from the farmer to the consumer.

EASTMAN'S CHESTNUT

The dry weather of the last several years reminds me of a letter that I got from a friend when there was a bad drought in his section. Here is the letter. After reading it I am sure you will agree that it was really quite dry where he lived!

"We haven't had any rain here in four weeks. The dew is only wet on one side. We have bullfrogs six weeks old that never have had a chance to swim yet. One of my neighbors, C. Beach from Newark Valley, started to plow a ten-acre lot for buckwheat. The ground was so hard and dry and stony the only way he could start his plow was to begin at a woodchuck hole in the center of the field. Whenever the plow would jump out, he would go back to the "chuck hole" to start again.

After he plowed six-and-a-half acres, the hole was completely worn out. In order not to be beaten, Charlie actually hunted up the woodchuck and gave him five dollars to dig a new hole so he might finish the job of plowing!

American Agriculturist, June, 1966



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Mr. Joseph Poirer, E. Haven (refund returned merchandise)	49.95

READ THAT CONTRACT

"Several months ago a young man telephoned me and told me I had been singled out for a real bargain in subscriptions. He told me I would receive five magazines for five years free of charge if I would pay postage charges of 35¢ a month. Several days later someone came to the house to get my correct address and to have me sign a paper.

"Then, they sent me coupons to mail \$3.50 each month, which would be a total of \$91 for the magazines! I immediately cancelled the whole thing before I even got one single magazine. Since then my life has been miserable. They call me every day. I don't see why I should be subjected to this."

There are a number of magazine sales agencies which send traveling crews on the road. Some solicit by telephone, some by personal calls. As soon as the agency has an order, they forward the subscriptions, together with pay-

ment in full, directly to the magazine publishers; then they collect by the month from the subscriber.

These are binding contracts and cannot be cancelled. As a subscriber, they offer you the magazines at less than you would pay by the single copy, and with the advantage of spreading your payments over two years while the subscriptions continue for an additional two or three years.

Unfortunately, some salesmen use the "something for nothing" approach, which appeals to all of us. In most instances he gets you to sign a contract. No matter what he has promised you, the only binding thing is the contract, which you will usually find states exactly how much you will pay a month for a certain number of months. It may also state that the contract is non-cancellable or that verbal agreements are not binding.

In other cases, where orders are taken by a salesman over the telephone, the agency usually calls later to verify the order before entering the subscriptions with the publishers. Some agencies send letters of verification, asking that they be notified at once of any errors.

We receive an increasing number of complaints from people who have agreed, either by written or verbal contract, to take certain magazines, and who then want to cancel when they figure what the total cost will be. This is TOO LATE! The orders have been sent to the publishers.

If you are interested in buying through a subscription agency, our suggestions would be:

1. Ask for proof that the agency is a member of the Central Registry Bureau of the Magazine Publishers Association. This is a guarantee that the agency is bonded.
2. Read anything you sign very carefully to be sure you know the terms of the agreement. You are obligated to understand the paper you sign as you would be with any purchase contract.
3. If you are "sold" by telephone and immediately regret it, either call the agency yourself, or be sure to tell them when they call to verify your order. Refusing to accept the magazines is of no use.

ADDRESSES WANTED

Hayward Makely, whose home was Richmondville, New York.

* * *

Mary Marshall, who lived with her aunt and uncle and attended school in South Walden, Vermont.

* * *

Archie, Alton, Frank, and Donald Strong, whose father was Will Strong and who may have lived in East Hardwick, Vermont.

* * *

Lloyd and Helena Bell, formerly of Penn Yan, New York.

Fractured Hip From Fall on Kitchen Floor



Seventy three year old Mrs. Eva Stilwell of Newark, N. Y. received benefit checks from local agent "Dutch" Reynolds of Palmyra, N. Y. A sudden slip and fall in the kitchen ended with a long recovery period. Her broken right hip kept her in the hospital twenty days then followed by weeks of disability at home.

Three North American accident policies paid her \$1211.43 of hospital, doctor and extra medical expense benefits plus \$325.00 of weekly disability benefits. Her total benefits were \$1536.43. Receiving her checks she wrote:

"I would like to thank the North American Accident Ins. Co. for the settlement of my broken hip, I appreciated it very much. It sure is a great protection."

Eva Stilwell

PARTIAL LIST OF BENEFITS PAID

Monroe Ewart, Canaseraga, N.Y.	\$ 243.08	Marcus Putman, Sharon Springs, N.Y. ...	\$ 394.26
Kicked by colt—injured leg		Kicked by cow—leg & knee injury	
Hans Kuhr, Whitney Point, N.Y.	741.38	Lora Oles, Jasper, N.Y.	809.38
Hit by falling tree limb—broke ankle		Caught in P.T.O.—injured shoulder	
Bellzora Wenrick, Franklinville, N.Y.	1430.00	Floyd T. Kwiatkowski, Owego, N.Y.	412.93
Truck accident—broke arm		Pinned by heifer—injured back	
Edward Faatz, Weedsport, N.Y.	494.43	Elmer Niemi, Trumansburg, N.Y.	490.75
Gear slipped—loss of finger		Murray E. Thompson, Ontario, N.Y.	510.65
Anthony M. Zrimsek, Forestville, N.Y.	945.30	Farm truck acc.—injured back	
Caught in corn picker—injured hand		Marie Fullagar, Penn Yan, N.Y.	110.00
Marguerite R. Bower, Pine City, N.Y.	404.50	Ladder slipped—cut fingers	
Auto accident—neck & back injury		LeRoy Boyce, Tioga, Pa.	1450.10
Carlton Rushford, Cadyville, N.Y.	100.00	Fell from scaffold—injured back	
Fell off truck—cracked ribs		Frances Noble, Gillett, Pa.	300.25
Sidney Strong, Truxton, N.Y.	981.30	Slipped on wet grass—broke ankle	
Hit by hay bales—broke hip		Paul E. Davitt, Erie, Pa.	202.86
Gordon L. Sherman, Westport, N.Y.	675.30	Kicked by cow—broke collar bone	
Chain saw kicked—multiple injuries		Florence Barrett, Columbia Cr. Rds., Pa.	401.15
Junior Paul Tremblay, Bombay, N.Y.	1056.58	Wagon came loose from tractor—inj. knee	
Pulled into beaters of spreader, inj. legs		Thomas Doherty, Seelyville, Pa.	271.43
Howard Hall, Batavia, N.Y.	634.75	Kicked by cow—broke leg	
Hit by falling ten gal. can—broke foot		Wilmer W. Gilpin, Grafton, N.J.	526.21
Wilma Wissick, Herkimer, N.Y.	520.26	Climbing ladder—injured knee	
Slipped and fell—injured back			

NORTH AMERICAN PROTECTION PAYS IN ADDITION TO MEDICARE

Homer Hobbs, Black River, N.Y.	214.29	Ronald Osmun, Columbia, N.J.	931.30
Kicked by cow—injured leg		Caught in drive chain—injured fingers	
Coletta Henry, Croghan, N.Y.	1301.43	Stanley B. Stevenson, Bordentown, N.J.	318.14
Slipped and fell—broke arm and pelvis		Caught in field chopper—injured hand	
Kenneth D. Upham, Eaton, N.Y.	409.62	Thomas Palmer, Englishtown, N.J.	1417.84
Tractor Acc.—injured shoulder, chest		Fell in woods—broke leg	
August Miller, Fairport, N.Y.	270.00	Robert Holsten, Pennington, N.J.	754.16
Hit by lawn mower—injured leg		Caught in baler—inj. arm	
Henry A. Schwabrow, Sprakers, N.Y.	362.22	Charles C. Sherwin, Stafford Spa, Conn.	205.05
Caught in silo unloader—injured hand		Fell—injured knee & foot	
Stanley Warner, Rome, N.Y.	506.88	Karol Gruszczynski, N. Hatfield, Mass.	500.00
Caught in corn chopper—injured hand		Truck accident—broke ribs, multiple cuts	
John Bishop, Jr., Marietta, N.Y.	1700.00	Clifford Plummer, S. Windham, Maine	1000.00
Auto accident—broke hip, cut knee		Bulldozer tipped over—leg and hand injury	
Clyde Burgess, Canandaigua, N.Y.	179.81	Mark Heath, Newport, N.H.	426.54
Fell—injured ankle		Caught under V-belt—injured hand	
Willis J. Rutherford, Waterport, N.Y.	1410.00	J. Ira Wark, Lower Waterford, Vt.	100.00
Thrown off wagon—injured back		Fell off ladder—inj. shoulder, wrist	
Marvin Bisbo, West Monroe, N.Y.	245.00	Franklyn Fisk, Sr., Sharon, Vt.	128.47
Knocked down by heifer—inj. knee		Slipped off truck—broke foot	
Eunice F. Carpenter, Hermon, N.Y.	500.00	Howard P. Wright, Grafton, Vt.	448.77
Thrown by calf—injured arm		Auto accident—multiple cuts and bruises	
Charles Lawrence, Massena, N.Y.	312.88		
Fell from ladder—broke arm			

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RURAL NEW YORKER

FOR THE NORTHEAST FARMER



USING TRACTOR POWER EFFICIENTLY

by Wes Thomas



ARE YOU confused by the claims and counter-claims in tractor advertisements? Visiting with a neighbor who has recently purchased a new tractor may not help either. Pride of ownership, combined with lack of experience with other makes of tractors, often produces opinions which are not necessarily factual.

One of the problems in purchasing and using tractor power results from the fact that this power must be purchased in relatively large single units. The amount of horsepower required for the largest task on the farm determines the size of the tractor. However, for all the other lighter load jobs, the same single high horsepower tractor must be used at part load. It cannot be subdivided to provide just the amount of power needed for each specific task.

Power

In general, the power output of the tractor engine is the best single indicator of the work capability of the tractor. And the best impartial source of such information for any tractor is the Nebraska Tractor Test. You can probably get summary sheets of these tests from your county agent. If not, write direct to the University of Nebraska, Agricultural Engineering Department, Lincoln, Nebraska.

Power is composed of two quantities . . . torque and speed. Torque may be considered as a twisting force; for example, the torque applied to the rear axle by the tractor engine. Speed is a measure of how fast an object is moving; in the case of the rear axle the speed of rotation in revolutions per minute. Total power available depends upon power output of the engine. Rear-axle torque can be increased by shifting to a lower gear, but at the same time rear-axle speed and ground speed are reduced.

Both torque and speed cannot be increased at the same time. Power available at the rear axle or at the shaft is always less than the engine power output because of losses in the gears.

The transmission gear ratio determines the relationship between torque and speed available at the rear axle. Low gear ratios produce high torque and low speed, while high ratios yield low torque and

high speed. Since both torque and speed cannot be increased at the same time, it is absolutely impossible to make a tractor more powerful by "gearing it down."

This is true whether the tractor has a conventional-shift transmission, a high-low power-shifting device, a full-torque shift, or a torque converter. In any down-shift arrangement, rear-axle torque is increased only by decreasing rear-axle speed if engine speed is not changed.

Tractor-pulling contests, in some areas a popular successor to horse-pulling contests, should be considered only as entertainment. They definitely are not a measure of the working ability of a tractor. In a contest between two tractors of equal power, the one with the lowest over-all gear ratio develops the most drawbar pull, if it is adequately weighted to prevent excess wheel slip. Tractors with a very low-speed creeper gear have the best chance in a contest of this sort.

Wheel Slippage

For a given torque, slippage depends upon several items, but mostly the type of surface on which the tractor is operating and the amount of weight on the rear wheels. In normal farm operations, the type surface cannot be changed. So wheel weighting becomes the one item that can be controlled to improve performance.

Every 100 pounds added to the rear wheels increases drawbar pull by 50 to 75 pounds, depending upon the operating surface. Weight . . . in the form of calcium chloride-water solution in the tires or cast iron bolted to the wheels . . . can be added up to the limit of the tire-carrying capacity.

In many cases, a combination of wheel weights and solution is needed to obtain enough weight. This extra weight reduces tire slippage. However, when the tractor is operated in the higher gears, this extra weight also increases fuel consumption.

Cast-iron weights have the advantage of being easily removable when the tractor is used for light

draft jobs. This helps reduce soil compaction and the rolling resistance of the tires.

Liquid in the tires is a mixture of water and calcium chloride to prevent freezing; the filling is a job for your dealer or farm tire service store. For this reason, the solution is usually regarded as a permanent part of the tractor. The rear tires are usually filled from 75 to 90 percent full. The 90 percent fill provides more weight, but leaves less air space for cushioning effect.

Since the calcium chloride is highly corrosive, a special gauge must be used for checking the inflation pressure of tires containing solution.

The ease of installing and removing rear wheel weights should be thoroughly investigated when you are considering the purchase of your next tractor. Some manufacturers use a large number of relatively small weights, while others use fewer but heavier weights. In the first case you have more individual pieces to install, while in the second case you have heavier pieces to lift.

However, the ease of installation of the heavy weights (approximately 100 to 140 pounds) can also vary considerably. It can be a relatively simple, one-man job, if the knobs or ledges are provided in the preceding weight to hold the next weight while you get the nuts on the attaching bolts. If the attaching bolts can be inserted and held firmly while you slide the next weight in place, you'll have less difficulty in installing weights.

However, if the weights must be lifted into an exact position while the bolts are inserted and the nuts started, it becomes a two-man job.

There are definite limits on the total weight that your rear tires can safely carry. Since many considerations enter into this problem, it's a good idea to consult your owner's manual or your dealer on this.

Some hitch-mounted implements provide a means of transferring weight to the rear wheels. Arrangements vary among the various makes of tractors. In some, the hitch is arranged so that as the load increases the hitch attempts to raise the implement. This action is opposed by the weight of the implement and by soil forces acting on the working surfaces of the implement. In other makes, the hitch merely positions the implement relative to the tractor. In these, weight transfer is a result of the line of draft, just as with pull-type implements.

Weight Transfer

Weight transferred to the rear wheels by any hitch arrangement is removed from the front wheels. Thus, adequate front weighting must be provided if steering control is to be maintained in heavy going.

The front tires can be filled with liquid, but their limited size does not provide for a large amount of weight. Some manufacturers provide cast-iron weights for the front wheels; however, installation and

removal of these weights is inconvenient because of the "squatting" position required in order properly to position them. Liquid in the tires, or cast weights on the front wheels tend to make steering difficult, especially at transport speeds.

Cast-iron weights which attach directly to the tractor frame are more easily installed or removed, since you support them while standing erect. In addition, they have less effect on the steering characteristics of the tractor.

Fuel Cost

Excess wheel slippage costs more in fuel expense than most operators realize. True, some slippage is necessary to secure traction. In most soils traction increases rapidly with increased slip up to about 5 percent. However, beyond the 15 percent value, traction does not increase enough to offset the reduced speed caused by the slippage. Slipping of the tractor tires becomes readily visible at about the 15 percent value. So, if you can see the wheels slipping, more weight should be added. The relatively low cost of additional weight will soon be repaid by the fuel saved and by reduced tire wear.

Total Power

The total available power at the drawbar can be used in any one of several ways. At one extreme is the system of using maximum weight to produce a high drawbar pull. A wide-cut implement, pulled at slow speed, must be used. At the other extreme, little weight is added to the tractor, but slippage is controlled by using a higher gear ratio. Then, a narrow-cut implement is pulled at high speed.

The best compromise usually lies somewhere between these two extremes. One important factor in making the decision is the number of gear ratios available. This is one justification for the increasing number of gear ratios now being offered in new tractors.

The variations in types of work to be done by the tractor should also be considered. If it is to be used almost exclusively for heavy drawbar load work, the necessary weights and solution can be permanently installed.

However, if light drawbar loads at higher speeds are in the majority, the extra weight is undesirable. It causes increased soil compaction as well as increased fuel consumption in soft-soil conditions.

In the latter circumstance, consider the possibility of doing all the work with as few weights as possible, thus reducing the burdensome chore of installing and removing wheel weights. For jobs such as plowing and disking, use relatively narrow width of cut, but pull them at higher speeds. The idea of a heavy, slow speed . . . high drawbar . . . pull arrangement might be considered as somewhat a carryover from the early days of the tractor industry. The introduction of rubber tires made possible the high-speed, lower drawbar-pull setup.

PUBLISHER'S CORNER

Dear Reader:

I wrote a few issues back about our new system being installed to handle address labels such as yours on the cover.

Percentagewise, it was a pretty good job, with only about 2 percent in error. But 2 percent of 250,000 comes to 5,000! With all the extra help we could find room for, we've been trying to correct those errors. Some copies were addressed to the right post office name but the wrong state, because somewhere along the line someone hit one wrong key on a typewriter. (Under new postal regulations, we are required to use only two letters for state abbreviations. So, if we have a reader living in "Chester, Massachusetts," we use "M A" for the state. If someone hits an "E" instead of an "A" it goes to Chester, Maine. "M D" sends the paper to Maryland; "M T" to Michigan; "M N" to Minnesota; "M S" to Mississippi; "M O" to Missouri; and "M T" to Montana).

The post offices are most cooperative in getting notices back to us (at a dime each) telling us "addressee unknown," and we search back through our files to find where the paper should go, and get the label in the right state.

I'm writing this, not to complain about our problems, but to say what fine understanding and cooperation we have had from readers whose copies have been delayed, or in some cases never been delivered. We send missing copies just as soon as we find out about them, but we know full well this isn't the kind of service readers want or expect from their farm magazine.

Unfortunately, mis-addressing some papers was not the only fault created by our switch to a modern system for our subscriber list. The changeover and delays caused something much worse: renewal notices were prepared and mailed to readers who had renewed three or four weeks before. We had foreseen this possibility and enclosed a slip with every notice asking readers to "ignore this renewal notice if you have renewed in the past few weeks." Some persons didn't read that little slip, and were peeved. I don't blame them!

As I write this for the July issue we are still about two weeks behind in updating expiration dates, making address changes, and so on.

So, if you happen to be one of those who received or receives a renewal notice, and you know that you renewed with a fieldman or by mail just a few weeks before, please toss the notice away; and bear with us while we are setting up a system which will give our readers better and faster service than any state farm magazine in the U.S.

You can help us be of better service by sending your address label with any correspondence regarding your subscription.

Sincerely yours,

A. James Hall



American Agriculturist
and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

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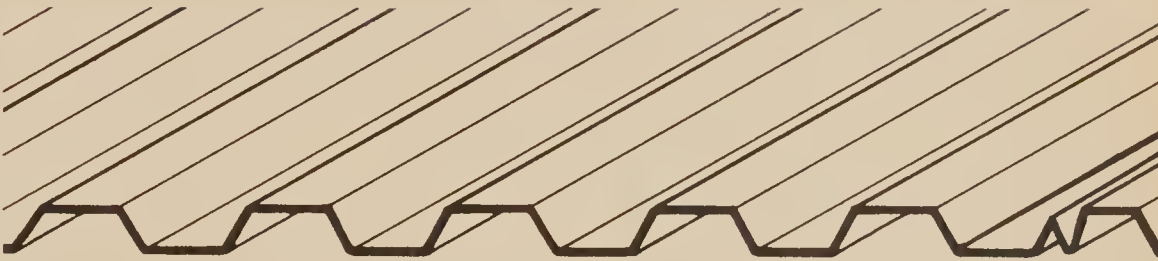
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EDITORIALS

by GORDON CONKLIN



ADDRESS AT GIMMIESBURG

New York State has done it again . . . exhibited what Governor Rockefeller calls "progressive leadership" by offering a sweeter socialized medicine plan than any other state in the nation. Eligibility is based specifically on having spent most everything one has earned, and it looks as though one-third to one-half of the State's citizens are eligible!

I can imagine a speaker arising in the year 2053 to address a crowd attending the dedication of an LSD lounge built with public funds. People come there for free kicks on this drug and, after all, we want everyone with felt needs to be happy, now don't we?

With all apologies to "Honest Abe," here's how I think the speaker might reword Lincoln's immortal address:

Fourscore and seven years ago our fathers brought forth on this continent a welfare state, conceived in affluence and dedicated to the proposition that all incomes should be equal.

Now we are engaged in a great war on poverty, testing whether that state or any state so conceived and so dedicated can endure much longer. We are met on a great urban renewal field of that war. We have come to dedicate a portion of that field as a final resting place for the hard-earned dollars of those few remaining productive people who gave their best through the withholding tax so that that state might redistribute the wealth. It is altogether fitting and proper that we should do this.

But, in a larger sense, we cannot dedicate . . . we cannot consecrate . . . we cannot enrich . . . this ground. The foolish men, living and dead, who struggled to shoulder their tax burdens so their neighbors' bills might be paid, have enriched it far above our own poor power to add . . . or our great power to subtract.

The world will little note, nor long remember what was done here, but our public relations people will insure that it can never avoid exposure to what was said here. It is for us, the benefitting members of the Greater Society, rather to be dedicated here to the unfinished therapeutic activity which they who preceded us have thus far so nobly avoided. It is rather for us to be here dedicated to the great task remaining before us . . . that lured by these deficit-financed dollars we take increased devotion to that cause for which the paying members of the Greater Society were wrung dry of the last full measure of devotion . . . that we here highly resolve that our sacrifices made in order to remain parasites shall not be in vain . . . that this nation, under government, shall have its new births at public expense . . . and that the exploitation of the productive, by the politician, for the parasite, shall not perish from the earth.

THE BRICKLAYER'S SYNDROME

It looks to me as though an old idea is gaining new importance on the agricultural scene. It's what I call the "bricklayer's syndrome."

Union bricklayers, you know, are allowed to lay so many bricks in a day . . . but no more, because to go beyond the norm would "put other bricklayers out of work." To a larger extent than in the past, I detect the same attitude among some farm folk.

A few letters I've received lately state in so many words that it's "immoral" for one man

to be superbly efficient because his performance makes it competitively hard sledding for his neighbors who are not able or willing to perform as well. Make it tough for the efficient ones (by laws and economic discrimination) the letters go on, so they will have to join the ranks of the average rather than outshining anyone.

Divide up the job to be done, the theory goes, then limit how much each person does so there is something for each. Keep the size of the pie the same or smaller, but be sure everyone gets an equal slice.

The American ideal of matching reward to performance has begun to fade . . . replaced by insistence on security at any price. What does a society consume other than what it produces? And how do we have abundance without encouraging low-cost production . . . or at least not discouraging it?

Must farmers impose production efficiency "ceilings" upon themselves in order to attain satisfactory incomes? What's your opinion?

FOOD FADS

British scientists now report that blood cholesterol levels averaged 13 percent lower in a recent test when people were lying down than when standing up. Another report says that atherosclerosis can be avoided by drinking enough alcohol to cause cirrhosis of the liver.

I knew it all along . . . live to a ripe old age by curling up in bed with a bottle of Old Rotgut and staying there!

Seriously, let's eat according to our best judgment and the advice of our doctors. Don't go charging off down one odd-ball road after another in response to some research report or expression of opinion!

DEATH OF AN ORDER

The second largest federal milk marketing order (in terms of milk volume) . . . Order 30 in the Chicago area . . . passed away quietly exactly at midnight on last April 30. The coup de grace was administered by the directors of the Pure Milk Association, bloc voting for members of their cooperative. When PMA voted "no" on an amendment recommended by the USDA, the necessary two-thirds producer approval was unattainable and the entire order expired.

Like the New York-New Jersey Order 2 area, the Chicago order area had been burdened for years with milk supplies far in excess of its fluid (bottled) requirements. Wisconsin has 18 billion pounds of milk looking for a home, and the Chicago market has traditionally served as a depository for milk that couldn't find a home anywhere else . . . just as the Order 2 area has also served as a dumping ground.

Most of the PMA producers are located nearby the metropolitan area, while many other producers shipping to the area are "far out." There has been feuding for a long time between the nearby and distant shippers . . . primarily over division of pool monies, and over dilution of the blend with milk beyond fluid needs.

The PMA directors, noting that a superpool price (in excess of the order minimum price) was in existence, and recognizing the tightening of milk supplies, decided to take the bull . . . er, cow . . . by the horns and trade a sorry bird in the hand for a possible two in the bush.

They also noted that Grade B milk in the farther out zones drew higher prices last winter than the blend price in the Order 30 area. PMA has launched a voluntary pool in the Chicago market, and the USDA has apparently shifted to the Wisconsin-Minnesota pricing formula as a base for other orders in the area, replacing the Chicago order pricing base formerly used.

When the smoke clears and the infighting is over, PMA hopes to secure a merged order area including Chicago, Madison, Milwaukee, and Rockford. They're also fighting for a Class I price based on prices paid and received by farmers, the income of consumers, and the price of manufactured milk. Another major objective is to guarantee a Class I utilization of 70 to 80 percent for nearby producers.

Dairymen in the Northeast will follow with great interest hearings on a proposed new Federal order for the Windy City.

SOLDIER IN OVERALLS

Saw a soldier turning the sod the other day . . . dressed in blue denims and driving a tractor. In an uncertain and hungry world, the productiveness of the American farmer provides a foundation of great strength for our nation.

Over the long run, I'll bet that the plowshare will prove a more potent weapon than the sword.

WILD ABOUT WILDLIFE

This is the time of year that blackbirds, raccoon, deer and other wild animals give farmers a rough time by destroying growing field crops and fruit. Blackbirds worked over my own garden unmercifully early in the summer, pulling seedling sweet corn. I enjoy wildlife (note this is one word), but unlimber the shootin' irons when animals invade the food supply. In case regulatory officials read this, let me hasten to add that sometimes the critters get a fatal heart attack from fear, but I never seem to hit them!

Our urban friends who rise in wrath to protect our feathered and furred friends have obviously never earned their daily bread producing food. How would they feel if farmers launched societies for the protection of termites, ants, Japanese beetles, cockroaches, and relatives . . . all of whom are battled, bombed, and battered by nonfarm homeowners. If one is going to promote nonselective "reverence for life," why omit from consideration those critters that are troubling oneself . . . and zero in on protecting those forms of life directly troubling to someone else?

Farmers need and deserve:

1. Stepped up research on practical ways of preventing wildlife damage.
2. Open season the year around on some animals like raccoon.
3. Support for wildlife control programs from the 92 percent of the population who eat fabulously well because each farm worker produces enough food for 30 people.

MANY THANKS

In recent months we've been sending out some survey forms to our readers to obtain figures helpful to us in knowing our audience better, and helpful to advertisers in sizing up the market potential of the Northeast. The response has been wonderful and I'd like to thank personally everyone who responded. Receiving this kind of encouragement . . . especially the hundreds of personal notes from readers . . . makes the day brighter and the years more inspired.

American Agriculturist, July, 1966

FRUIT



Prevents Apple Drop — A growth retardant, called B-995, has been tested, at the Washington Agricultural Experiment Station near Wenatchee, and found promising as a means of preventing harvest drop and watercore in apples. The retardant delays maturity, and permits the fruit to be harvested before watercore develops and before harvest drop occurs. Further testing will be done before the retardant is available for general use.

Grapes — Seaton C. Mendall, vineyard consultant for the Taylor Wine Company at Hammondsport, New York, comments that robins are the worst marauders in vineyards. Immature Baltimore orioles and various sparrows also gobble fruit... don't move out of vineyards when scaring devices sound off, as starlings and blackbirds do. French hybrid grapes are toughest to protect, possibly because of their especially aromatic odor.

Taylor is experimenting with wine grape varieties on the Geneva Double Curtain method of trellising... reportedly increasing yields by 30 to 50 percent. Pruning is speedier with this method than conventional ones; pulling brush is simpler, and there is no spring tying. Vines have to be "combed," though, to put primary shoots in vertical position.

Mendall reports that a processor in Michigan is planting 1,000

acres of the Concord variety using the GDC trellising system. It lends itself to mechanical harvest... the cost of which is around \$3.50 a ton, compared to \$32 per ton when picked by hand. At present, mechanical grape harvesting machines are not adapted to land with much slope, work best on level or only gently-sloping lands.

Apple Harvester — C. J. Perry & Sons, Inc., Gasport, New York, will build four mechanical apple harvesters... as developed by Cornell engineers... to go into commercial production this year. Two of the machines will be operated in Wayne County, east of Rochester, and one each in Monroe and Orleans counties.

HE SERVED

WITH DISTINCTION

The death of Ralph C. S. Sutliff at his home in Delmar on May 22, brought to a close 40 years of continuous service to the state and the nation in agricultural education.

"Sut," as he was known to his many friends, graduated from college with the idea of teaching agriculture. His teaching career began at Horseheads Central School. Two years later he became an "itinerant" agricultural teacher (at the State School of Agriculture at Morrisville and many central schools), where he organized agricultural programs that later developed into full-time departments.

And he helped promote and organize home economics departments, too.

National recognition began with his work as a specialist in agricultural information with the USDA, then in 1937 he was appointed supervisor of agricultural education in the New York State Education Department, where his administrative and supervisory abilities had full play. In 1948 he became Chief of the New York State Bureau of Agricultural Education, a position which he held at the time of his death.

Mr. Sutliff is survived by his wife and three sons, and our deep sympathy goes out to them, and to the other members of his family. — *Isa Liddell*

Pick up your phone. Dial! Then instead of pulling into an Atlantic Service Station relax, let an Atlantic Service Station pull into your farm! The familiar Atlantic "service station on wheels" carrying all your petroleum needs will answer your call. Then the same quality Atlantic gasoline available on the highways will start working for you on your farm.

Atlantic gasoline will supply your equipment with power for peak performance. At the same time you'll receive Atlantic know-how and ser-

vice that only comes from over 96 years of petroleum experience. Your Atlantic man is the key to this service. For instance, if you need storage equipment on your farm at all times—he can offer details on the loan of tanks and pumps.

It only takes one finger to see him. It could be the best move you make all day.

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Produce a
service station
with one finger?



EDITORIAL SUPPLEMENT

The purchase of Whiting Dairy... New England's second-largest dairy distributor... by the Dairymen's League will almost double the League's milk handling volume.

New England, because of a steadily-declining number of dairy farms, has for years been reaching ever farther west for milk supplies. Meanwhile, the region's need for milk rises each year as population grows.

This move will offer League members a good business opportunity for themselves and their organization, and will provide flexibility in milk marketing of potential benefit to dairymen across the Northeast. New England dairymen need not fear displacement of their milk with "cheap" milk from New York.

It takes big chunks of capital to negotiate purchases of this magnitude. Farmers should maintain vigilance over their organizations concerning the use of capital they help create... but they must also recognize the importance of making capital reserves available to their cooperatives in order to take advantage of opportunities for expansion. — *G. L. Conklin*

FIRST CLASS MAIL



SUCCESSFUL FAILURE

I spent the first eighteen years of my life on a farm, and remember fifty years ago what it meant to my parents when one year in the State of Delaware a very late frost destroyed a large acreage of peas that were being grown for a factory. Also another year when just before marketing a fine crop of hogs all became infected with hog cholera and died. These are bitter disappointments . . . but success or failure is not always measured in dollar assets or liabilities.

It had always been my hope that upon retiring we would do so on a little farm, but when the time came my health would not permit even the lightest of farm tasks. Retirement to me meant absorbing a part of the housework, tending the lawn and flowers, as well as running many of the errands my wife had always looked after. These things I thought . . . together with the traveling we had been looking forward to . . . would round out our plans pretty well.

This was it. The show was about to go on the road . . . the curtain was rising and we were the players.

It was the first of the year, winter time, and since we did not care to travel South, we would wait a couple of months until spring. But three months later my wife became ill and it was determined she needed an operation.

Then the roof fell in. I met the surgeon as he came from the operating room and he gave me a one-word report, "inoperative." He further stated she could last perhaps only six months. However, with the aid of prayers, preachers, faith etc. . . . together with the skill of present-day doctors . . . she survived twenty-two months.

What now of the many years of planning for retirement happiness? What now of the available funds that should have been invested in vacations away from home? How I wish some of those funds could be replaced with memories of outings together, rather than having been accumulated for dreams that were never to happen! How these thoughts now haunt me, for I feel I am comparable to the man as recorded in Luke 12, verse 20, who anticipated building greater barns to store his goods, and was told, "Thou fool, this night thy soul shall be required of thee, then whose shall those things be which thou hast provided?"

I still believe in thrift and that all men are responsible for planning ahead for the education of their children, for their own declining years, and whatever emergencies might arise. But in the meantime do not neglect the happiness

of her who has been your inspiration for obtaining these better things in life.

Set aside a little period or two each year and get away from the everyday chores, let her know that she is still the sweetheart you married. Let her know that you are still the Romeo she thought you were when you were married. Let her know she is still your queen and you are willing to prove it.

Honor your responsibilities, but not so intensively that by the time you think you are prepared to reward your helpmate it is already too late. The schedule you had so carefully worked out for the future may prove only one thing . . . that you must live the rest of your life in remorse because of your misjudgment, and that you have ended your career a Successful Failure. — *F. L. Harris, Lansdale, Pennsylvania.*

REAPPORTIONMENT

It would look now as if Senator Dirksen's reapportionment amendment is a lost cause because, even if passed next year, most states would have reapportioned. But there remains great virtue in two legislative houses:

1. Two looks at a law are worthwhile, as laws are serious and important.
2. Careful consideration and delays permit the citizens time to form and express opinions.
3. A clique will have greater obstacles in the way of seizing power.
4. Diverse constituencies will help to insure that all viewpoints are considered.



The 1966 Annual Field Day and Farm Materials Handling Exhibition will be held August 10 and 11 at the Clarence E. Matthews and Monroe County Department of Parks farms on Pond Road just north of Honeoye Falls, New York. Above is scene from hugely-successful 1965 event. Photo: N.Y.S. Electric & Gas, Inc.

Strictly interpreted, one-man-one-vote will leave little reason for two houses. Yet most successful governments have two; one is as rare as three . . . and probably a single-house legislature doesn't work as well. Rather than deploring what has happened, let us rather consider a different viable basis for two houses. Length of time in office is one . . . two years vs. four or six, for instance.

Let us widen our consideration, though, to at least look at some other basis. Assuming that the Assembly (lower house) remains popularly chosen at frequent elections, let us consider the Senate (upper house). Here are three possibilities:

1. Partly elected from proper districts, and also containing as life members all assemblymen who have retired (or failed re-election) after having served at least ten years in office.
2. Same, but include retired mayors of large cities and chairmen of county boards of supervisors, and/or city and county managers.
3. Retired judges, and persons of national reputation in law, teaching, arts, business, publishing, religion, radio and television, science etc., selected by a legislative commission.

While people not subject to popular scrutiny by re-election may loaf or wantonly accept bribes, on the other hand, honorable men assured of life income and without expense of election campaigns might choose to vote purely according to conscience.

Of course, this would be similar to the system of life peerages from England, and it works well there.

Do the readers have any other ideas? — *William M. Selden, 2742 Chandler Rd., Piffard, N.Y. 14533*

TOO MANY LAWYERS?

I read your editorial "One Man — One Vote" and I wonder if reapportionment will have such an earth-shaking effect on our State Legislature, or will it be more of the same on a broader basis. The

last count I made of the State Legislature shows we had 208 members in both houses, and of these 208 members 144 were members of the same profession. A little simple arithmetic will show that this is slightly more than a two-thirds vote in both houses.

A legislature made up like this may have singleness of purpose, but it also has a one-track mind! A degree in law does not make an expert on agriculture, highway construction, highway safety, school financing, conservation, etc. I have heard and read many speeches by members of the two major parties accusing each other of dominating the State Legislature, which is a little difficult to swallow under the circumstances.

We should declare an open season on these people in the coming elections, whittle their number down, and replace them with people from other professions . . . business, labor, etc. This can be accomplished by an informed public voting in the primaries and general elections. — *Earl R. Anstie, Clyde, New York*

SCHOOL PRAYER

We are a religious family. Our children have all had religious upbringing. We try to lead good moral lives. We have only sympathy for atheists and nonbelievers. We are opposed to Communism in all its forms. But we have found nowhere in the Supreme Court decision a proscription on religion being taught in the home by the parents.

The rule of the majority is undoubtedly one of the features of enlightened democracy . . . but democracy is more enlightened when it does not trample the God-given rights of the minority. The Constitution guarantees to each of us the right to pray as he wishes, or not to pray at all. If a teacher may preach belief in God in the classroom, he may equally as legally preach nonbelief in God.

It is easy for parents to delegate to others tasks they do not want to assume. Marriage counselors, psychologists, psychiatrists, welfare workers, social advisors are all doing a thriving business today, mainly because it has become an "in" sort of thing to turn over the important function of being a parent to a professional.

The Supreme Court wisely feels that the teaching of religion is an intimate thing, the duty of the parent, and that there is no finer place for this to be done than in the home and in the church. I applaud its decision to take this out of the schools.

While I may believe that my particular religion is best for me, I have no right to force it on another, and innocent as any of the school prayers may be, they do represent one individual's concept of God. I would not care to put this power, and this responsibility, in the hands of any teacher, no matter how competent he may be academically. — *Herman Herst, Jr., Shrub Oak, New York*

American Agriculturist, July, 1966



Grange Position on:

CLASS I BASE PLANS

LAST MONTH, comments by G. LaRue Sears, chairman of the New York State Grange Dairy Committee, were printed. Here are the comments of Allan LaMotte, a member of the Tompkins County Pomona Grange Committee that pushed early for two-price enabling legislation. He wrote this in April when study committees were developing recommendations.

In recent months New York dairymen have seen some improvement in the price which they receive for their milk. Any rejoicing over this price improvement must be tempered by consideration of the cost at which it has been achieved. The cost has been high... too high.

First, we have the situation in Asia and the military build-up, with the resulting pressure on our economy. Second, nearly one million families have left the nation's dairy farms in the past dozen years. Many thousands of these

were young farmers trying to get a start as the new generation of dairy farmers, the ones who should produce the milk in years to come. But they found the cost-price squeeze too much to take.

Producers Out

The New York milkshed alone lost nearly three thousand producers last year. This is not surprising. Some interesting figures were supplied by Professor L. C. Cunningham of Cornell; they are generally considered to be the best available. These figures were based upon a formula which included a wage allowance for the operator related to hired men's wage rates in the area. They showed that the average, year-round cost of producing milk in New York was \$4.75 per 100 pounds in 1965. The average price received for milk of the same test, (3.7 percent) was only \$4.40 per hundred.

When these cost figures are

weighed against the average price received for Class I milk we find that this is usually a profit item; on the other hand we find that the Class III milk is generally a loss item.

At this point let us introduce a Class I base program into the picture. Let us recognize it for what it is, a management tool to be used by the operator to adjust his production to a more profitable level by reducing the amount of the Class III milk (the loss item) which he produces.

Adjustment

We should remember that any decision to adjust this production level will be made by the producer as he desires. Some producers have the mistaken idea that they will be required to cut back in their production; this is not the case. It will be the responsibility of each producer to make the decisions for his farm. If he believes that he can improve his income by producing more milk he is free to do so without penalty of any kind.

Management Tool

When we realize that this is a management tool, not a production control device, that there is no limit on Class III production and the Class I market is determined by consumption rather than production, that the plan recognizes the difference in market value between the milk which goes in Class I as opposed to that going into Class III, and that any ad-

justment made by the producer will be his decision and his alone, it emphasizes the merit in a Class I base program.

At this point we have discussed only the basic function of such a program. Various producer groups are currently engaged in efforts to determine the details of such a plan. Any producer who has a desire to see this plan developed along specific lines should not hesitate to make his views known to his cooperative or other farm organization. As producers, we have the responsibility to develop this program to meet the needs of all. It has worked well in the South, but perhaps more important is the fact that this type of program is working well in the midwestern dairy belt, the heart of our national Class III producing area. It can be made to work in our area, as a means of holding and improving on the slight gains we have made.

CORRECTION

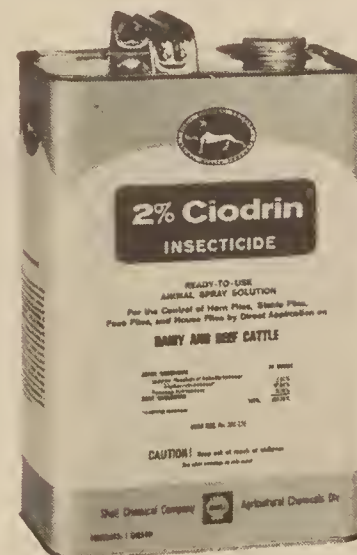
In our April issue, we suggested that people interested in information on fence building might want to contact various steel companies or educational institutions. We have been notified that the address of the agricultural representative for the United States Steel Corporation should have been: United States Steel Corporation, Agricultural Marketing, P.O. Box 86, Pittsburgh, Pennsylvania 15230.

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LIQUID MANURE

In 1963 when we built our free stall dairy barn, I looked into the liquid method of handling manure. In our situation, I decided against it.

First, there was a large investment... around \$10,000 to \$12,000 for our herd of 125 cows. I would still need to maintain a spreader to care for the manure from our young stock.

I could see that some loss of nutrients in the manure would be saved, but some figuring indicated that the saving would be too small to pay the interest on the investment.

We like to use a piece of equipment for several jobs, and a tank and pump for liquid manure could

be used for only one.

We use sand for bedding at a cost of \$1 per cow per year, and everyone knows that sand and pumps do not mix.

In talking with dairymen, several mentioned that a liquid system doesn't work too well in cold weather; also that a liquid agitator could be a problem.

As I see it, efficient dairy farming indicates cutting down on the volume or weight that has to be moved. For example, we try for low-moisture, high energy corn silage. So why add several times the weight of the manure in the form of water which then has to be moved?

Finally, in this area homes are being built every year, and the odor when liquid manure is spread

is sure to be objectionable. I am told that the odor can be overcome or lessened, but it's costly.

I realize that farm conditions vary and that a liquid system might be very satisfactory on many farms. However, I feel that the possible disadvantages should be considered before making the investment. — *Lou Longo, Glastonbury, Conn.*

PART-TIME FARMING

I am a part-time farmer, selling and servicing small engines in a shop on the farm.

We raise 50 acres of corn as a cash crop, 2 acres of strawberries (Sparkle) and an acre of tomatoes, both sold on a "pick 'em yourself"

basis. We also keep a breeding herd of 30 Herefords. Up until five years ago we had a dairy, but changed to beef in order to have more time to work in the shop.

Calves come early in the spring. The cows run on pasture, and get plenty of hay and corn silage, but very little grain.

The calves are sold by weight as feeders late in the fall (when they weigh 300 to 400 pounds) to farmers in southern Pennsylvania. We usually butcher two or three a year for friends.

We figure on 3000 to 4000 quarts of berries per acre. The family, including some nephews, do the weeding, but we plan to try some chemical weed control this year. — *Waldo J. Wood, Knoxville, Pa.*

Personal Farm Experience

The items on this page all come from the firing line of farm production.

POTATO GROWING

When we first started farming I grew 30 acres of tobacco, but in 1913 I began to grow potatoes as a sideline, and gradually went out of tobacco and grew more potatoes, up to 100 acres.

In recent years our potato acreage has been about 50, and soon I will be out entirely. There are several reasons: taxes are high, and more and more houses are being built nearby. However, the main reason at my age is that I must spend \$25,000 to \$30,000 to mechanize if I want to continue. Also our land is stony, and not well suited to a potato harvester.

I have seen many changes in potato growing. At first, all equipment was horse-drawn and made for one row. Then we had engines to operate some... for example, diggers... but they were still horse-drawn. Gradually, the equipment became bigger and more costly.

Years ago we sprayed with Bordeaux for blight, calcium arsenate for bugs, and tobacco extract for aphids. Now we spray as often as twice a week, with new sprays coming along every year.

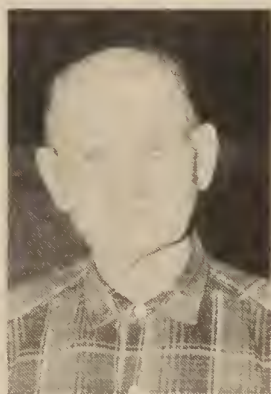
Chemical weed killers have replaced cultivation to a degree, although weeds weren't a big problem years ago. For one thing, Green Mountains, once the principal variety, grew dense tops which smothered weeds. Now Katahdins have largely replaced Green Mountains.

Irrigation is another development which we use where water and labor are available.

Perhaps the biggest change has

been in marketing. I can remember taking potatoes to Hartford, twelve miles away, with horses. Later, local peddlers who delivered to stores and housewives came to the farm to buy. For a time they took most of the crop.

Around 1938, wholesalers from New York City came to buy potatoes; around 1954 their place was taken by local brokers, who came to the farm to pick up potatoes in big trucks and haul them anywhere there is a market. — *James Gedrin, Broadbrook, Hartford County, Conn.*



James Gedrin

NEW BARN

My brother Bob has 38 cows at his place; there are 34 in my barn. We are building a new barn to put them all together. It looks to us as though stanchions offer the possibility of more milk per cow, but free stalls have the potential of more milk per man... therefore we're planning a free-span barn so we can go in either direction. In any case, we'll milk in a parlor.

Up to now, we have grown no corn and depended on hay, but may have to go to corn silage to feed the larger herd. We have used a hay drier (no heat) in both barns and have finished first-cutting by the Fourth of July for the last four years.

A self-propelled windrower and conditioner with a ten-foot cut has helped speed up the job... as has a bale gatherer on the baler that dumps bales in piles. Normally, we roll the windrow of first-cutting once to speed drying, but not second-cutting. The windrower baffles are set as narrow as possible so the windrow is high and air can get through it.

Our parlor is a side-opener with 3 cows on each side. There is a 30-ton feed storage overhead and feed

flows down through an electronically-timed mechanism. Electric heating cables in the pit floor provide comfort for the man doing the milking. The milking house is at a lower level than the parlor so milk flows by gravity to the bulk tank.

Hay is fed the year 'round, and we try to keep hayfields producing by topdressing all of them every year with 200 to 300 pounds per acre of 5-20-20 or 5-15-30. Fields almost entirely grass get 60 to 80 pounds of nitrogen per acre from ammonium nitrate broadcasted in the spring.

Seedlings are made without a nurse crop... usually in August, but sometimes in the spring. Seed is put on with a grain drill equipped with drop tubes, behind which is pulled a cultipacker. We've had 75 to 100 tons of lime applied on the farm for years, the amount depending on soil samples. — *Roy Irwin, Earlville, New York*

BIG IRRIGATION GUN

Rewellien Mohr uses a "big gun" irrigation system to deliver a lot of water in a short time to his 250-acre peach and apple orchard at Fogelsville, Lehigh County, Pennsylvania. But without conservation measures much of the water would be wasted in runoff, Mohr says. And running water

would take topsoil with it.

"To get full value out of this heavy water application, we have to protect the soil with such conservation measures as contour rows, diversion terraces and cover crops," Mohr reports.

The "big gun" is simply a large nozzle through which water is forced at high pressure. At the Mohr orchard each of several "big guns" deliver 360 gallons of water a minute under a pressure of more than 90 pounds a square inch. The nozzle shoots the water out about 200 feet in every direction. One nozzle covers several acres at one setting.

"We deliver one half to an inch of water to the land per hour," Mohr said. "With that volume of water hitting the land in so short a time, we found it necessary to install protective measures. We got help in planning and applying the necessary conservation measures from the Soil Conservation Service through the Lehigh County Soil Conservation District."

For the two-month irrigation period in 1965 Mohr said it cost \$2,700 to operate his "big gun" system.

"That's a lot of money, no doubt about that," he agreed. "But the irrigation water improved the quality of the fruit and increased my gross income by 30 percent."

NO BEND

Our milking parlor (herringbone double-four) makes it possible for my brother Ronald and his 17-year-old son to milk 80 cows in 2¼ to 2½ hours. No back or knee problems in the parlor... but when we help out a neighbor in a conventional barn in an emergency, we know we'd never want to

(Continued on next page)



One of the big guns at the Mohr farm.

milk cows with our knees again! Cows are dried off at another farm; we have trouble getting them to stop milking as long as they are going through the parlor each day.

We recently remodeled the barn, adding on an area for 86 free stalls on one end of the old barn and a milking parlor at the other, but using the old barn as feeding area and hay storage. Silage bunk in this feeding area is 84 feet long; cows feed from both sides.

We may go to an all-silage roughage program; if we had built an entirely new barn, I suspect we wouldn't have provided for using hay. For summer roughage, we have chopped rye and hay crops. This year, we have 50 acres of corn to fill our 20 x 60 silo at the main barn, and the 14 x 50 at the other place.

In the present setup, a cow is culled if she doesn't fit the "system" . . . refusing to go into a free stall, nervous in the parlor, etc. As we expected, production per cow dropped somewhat the first year in a different barn arrangement. — *Richard Meade, Oxford, New York.*

Dates to Remember

July 2-4 - New York Flying Farmers Campout, Glen Eaton's Airstrip, Elmwood, Ontario, Canada.

July 3 - Eastern New York Dairy Goat Club Official Dairy Goat Show, Schaghticoke Fair Grounds, New York.

July 6-8 - Cornell Short Course for commercial operators of nursery, arborists, landscaping and garden center businesses.

July 9 - New York Angus Association Field Day, Cornell University, Ithaca, N.Y.

July 9 - 18th annual Maine Broiler Day, Belfast City Park, Maine.

July 9 - Annual State Swine Field Day, State Swine Evaluation Station, Alfred, N.Y. . . . near Agricultural & Technical Institute.

July 12-13 - Annual Poultrymen's Get-Together, Morrison Hall, Cornell University, Ithaca, N.Y.

July 29-31 - Annual Reunion, Pioneer Gas Engine Association, Inc., Fairville, N.Y., Route 88, 3 miles north of Newark.

July 23 - N.Y. Angus Association Junior Field Day, Elm Place Angus, Avon, N.Y.

July 30 - Annual N.Y. Hereford Association Field Day, Forrestal Farm, Medina, N.Y.

July 30 - N.Y.S. Sheep Improvement Project Ram and Ewe Show and Sale, Finger Lakes Livestock Auction Barns, Canandaigua, N.Y.

Aug. 4-5 - New England Green Pastures Dairy Farmers Business Management Conference, University of New Hampshire, Durham.

Aug. 8-9 - N.Y.S. Horticultural Society summer tour to Massachusetts and New Hampshire.

Aug. 10-11 - Field Day and Farm Materials Annual Exhibition, Clarence E. Matthews and Monroe County Department of Parks farms on Pond Road, just north of Honoeye Falls, N.Y.

BEEF CATTLE AND SHEEP

My Dad always kept sheep. I concentrated on beef cattle for some years, but in 1951 I had some feeder lambs and my 6-year-old daughter kept one for a pet. I figured we might as well have several as one, and now we keep 30 ewes and a ram.

They are grade Corriedales, and the lambs go to the Watkins Lamb Pool in the fall when they weigh around 100 pounds. This gives me a good market. The lambs get almost no grain.

The lambs are graded and pooled; most of mine are graded No. 1, a little below "prime," the top grade. I notice that most of the

lambs that grade "prime" are Suffolks.

I have had little dog trouble, partly due, I think, to letting the sheep run with the cows. A cow with a calf has no use for a dog, and the dogs know it.

I started with Angus in a small way in 1925, and in a bigger way in 1928. Right now (March 1966) we have 92 head of Angus.

They feed on rotated pasture, but in the fall each gets 5 pounds of grain a day, and by the following May when they are around 11 months, the grain has been stepped up to 15 pounds a day.

When the steers are 16 months old and the heifers 20 to 22 months of age I take them to the Empire

Livestock auction market at Caledonia. They have treated me well, and I have stuck with them ever since the market was opened.

Winter roughage is mixed timothy and alfalfa hay and corn silage made from mature corn. — *George Hopkins, Ithaca, N. Y.*



George Hopkins of Ithaca, New York

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Mark Adams uses an egg cart to collect eggs from hens in full stair-step cages.

IN THE LAND OF SNOW WHITE LAYERS

MARK ADAMS, poultryman near Naples, New York, has an ideal farm location in many respects. Nestled in a beautiful valley high in the hills of Central New York, he has had no battles with his neighbors over odors. He has room to spread manure from 40,000 birds (20,000 layers and 20,000 growing pullets) on his own land and grow big crops of corn.

He raised 15 acres of corn in '65, using no commercial fertilizer at all, and fed grain produced to hogs... a mighty fine investment with prices as they are! There are 120 acres in the farm... 90 tillable. Mark also uses manure as a topdressing on meadows. Some grape growers in the area have shown interest in using hen manure on their vineyards.

Cornell Family

The Adams have been on the farm 18 years... coming here after Mark graduated from Cornell in '44, and then put in 4 years in the U.S. Army. It's a Cornell family... Mark's wife Mary graduated from the University's College of Home Economics in 1944, and son Mark, Jr. is presently a sophomore at the College of Agriculture.

A number of years ago the Adams were in the broiler business, with as many as 32,000 being grown at one time. Now, though, there are only egg-type birds... all 20,000 layers are in a 36 x 458-foot windowless house built in August, 1964. Two older buildings house 20,000 growing pullets; one is a 36 x 280-foot two-story windowless house, and the other is a four-story remodeled barn.

The big laying house was built by the Santelli Lumber Company of Lyons, New York. Including everything... grading, concrete, and equipment... the cost was \$65,000. About half of this figure was for equipment and half for the building itself.

Electric power is the muscle of the building... besides lights, there are 9 ventilating fans, motors on pit cleaners, more motors on time clock-controlled feeders, and an egg belt on one row (other rows are collected by using an egg cart). Just in case of the unusual power outage, though, Mark has an auxiliary generator that can be powered by the pto of a 4-plow tractor... big enough to handle all the electric power needs of this one building.

In the past, chicks have been dubbed and debeaked when a day old, debeaked again at 20 weeks of age when placed in cages. Future plans call for debeaking the pullet flock at 12 to 15 weeks of age. Mark reports no problem with cannibalism among birds... four per 12 x 20-inch cage.

Medication for pullets includes a coccidiostat in feed during entire rearing process... a process advisable only when birds are going into cages and therefore will not be exposed to future infection by coccidiosis. In addition, birds are vaccinated for bronchitis, Newcastle, and epidemic tremors.

The Adams use a strict sanitation program to protect the growing flock, especially during the first four weeks after the chicks arrive. Outer garments worn in the laying house are changed before entering the rearing houses, and every effort is made to prevent disease spread from older birds to the younger ones.

Lighting

Lighting for the growing birds is a step-down program, trying to end up when birds are 20 weeks old so that artificial light duration is equal to length of daylight. For layers, all light comes from four rows of 40 watt bulbs on the ceiling, with bulbs 16 feet apart both ways. Light in the laying house is stepped up to a maximum of 17 hours, with lights out completely at 9 p.m.

Normally, a flock of birds goes through a 14 to 15-month laying period in the full stair-step cage setup, and then are replaced by a new flock. However, Mark force-moulted a flock in September of 1965, planning to hold them in production until after Easter this year. Mark comments: "These birds had peaked at slightly over 90 percent production on the first cycle. Moulting only a good flock, not a poor one."

The moulting procedure began by cutting off all drinking water for 2½ days, all feed for 3 days. Light was dropped to 4 hours per day... 20 hours of darkness. Then water and feed were resumed... the latter a laying ration containing 19 percent protein. The flock came back to peak at 79 percent production. The only problem... the blizzard of feathers going into the pits plugged up the manure cleaner!

Manure is cleaned out daily... except for emergencies like the blizzard of '66, or all-day meetings made mandatory by Mark's position as town supervisor. Birds

are of the Shaver strain (originally developed in Canada); the quill has been dry enough so a regular gutter cleaner acting as a cross conveyor at the end of pits can elevate it into the conventional spreader. If everything is working right, cleaning and other chores require only 9 to 11 man-hours per day in the laying house.

The work force consists of Mark, his wife, and three children ranging in age from 8 to 16... plus son Mark, Jr. during the summer when he's home from college. Two high school boys are also hired at times.

The Adams operation is associated by contract with Lakeland Farms; Mark believes such contracts offer flexibility. For instance, he can keep his houses full all the time... growing pullets that will go to other poultrymen under contract to Lakeland, or perhaps receiving some birds for his own laying house grown by these other poultrymen. Besides, he believes a contract lowers risk and provides for sharing of capital requirements. — Gordon Conklin



By delaying the start of lay period for his pullets, Felix Paprocki eliminates most of the small eggs.

PAPROCKI'S EGG FACTORY

by Bob Cudworth

POULTRYMAN Felix J. Paprocki, Schenectady, N.Y. has answers for some of the skeptics who claim that: Southern eggs will soon take over all Northeast markets... rising costs make the family farm a thing of the past... and that consumers have stopped eating eggs.

Felix has been a fulltime poultryman only since 1958, but he has been named the Ford Farm Efficiency Award winner in egg production for 1966. He is one of 15 winners in the nation being honored by Ford... each for proficiency in producing a different commodity.

His efficiency is based on 3.9 pounds of feed per dozen eggs, and 250 eggs per hen housed per year.

He has announced the selection of the N.Y. Veterinary College's regional diagnostic laboratory at

Kingston to receive the \$2,000 grant from Ford Motor Co. Dr. C. I. Angstrom, director of the lab, reported he will purchase equipment to employ fluorescent antibody techniques.

This equipment will permit faster diagnosis in early stage of poultry virus diseases, such as Newcastle and laryngotracheitis. Specific diagnosis can be made in a few hours rather than the several days required with present equipment, and will be a tremendous boon to all poultrymen in the area, said Dr. Angstrom.

Felix wasn't brought up on a poultry farm. Paprocki's Egg Factory... as it is known now with 30,000 "employees"... started with 9 hens purchased at an auction.

An electrician repairman for General Electric Co., Felix and

(Continued on next page)

American Agriculturist, July, 1966

family had moved to the country in 1953. He remembers putting the 9 hens into the kids' clubhouse . . . much to the disgust of the kids . . . and later bought 50 more hens because there was a demand for fresh eggs among his neighbors.

He kept increasing his flock until in 1958 he had 3,000 birds. Holding down two jobs was too much by this time, so he left G.E. to concentrate on his poultry business.

Premium Prices

All eggs from Paprocki's are sold at retail or to stores, restaurants, and bakeries. His eggs bring 9½ cents per dozen premium over market price, because of the reputation he has built for quality and freshness.

Central Markets, a chain of 32 stores, is his largest single outlet — and he makes deliveries direct to the stores. However, some 25 cases of eggs weekly are sold directly from the farm, and another 40 cases sold on a house-to-house route.

"We have deliveries going to stores 6 days a week. Many times the housewife is getting eggs within 48 hours after they have been laid. Freshness and close attention to quality is the best way to overcome competition from Southern eggs," Felix points out.

In this Paprocki family enterprise, daughter Patty does the candling, Kathleen packs and takes care of the egg room, and Mrs. Paprocki handles the books. Two other children, John and Janie,

are too young to help yet.

Additional help is hired for delivering and for the egg room, where up to 125 cases of eggs are handled daily. All eggs are washed.

Some of the eggs are packed in Paprocki's Egg Factory cartons, but many are packed in the cartons of stores or dairies. "You will notice that the colorful printed cartons are on the way out, and the molded cartons are predominating," observes Felix. "Most people are interested in the eggs themselves and in a carton that will protect them rather than a fancy one that doesn't protect. It's the egg, not the carton, that promotes impulse buying."

Later Production

Felix Paprocki handles his birds a little differently from some poultrymen right from the day he gets them. He buys all started pullets, raised to his specifications, but he starts them in production later than many poultrymen do.

"I don't bring them into production before 23 to 24 weeks, and the later I can hold them the better. That way they aren't laying much before 26 to 28 weeks, and I eliminate all the pee-wee and small eggs," points out Felix. He keeps his birds in production for 14 months.

All 30,000 birds are kept in cages . . . some with 6 birds per cage, the others in 25-bird colony cages measuring 3 x 4 feet. The 6-bird cages, measuring 20 inches x 16 inches, are actually two 10-

inch x 16-inch cages. "The 10 x 16 cages are designed for two birds, of course, said Felix, but we found we could take out the center wire and put in two more birds quite nicely."

The Paprocki birds are in four buildings, housing 6,200, 12,000, 7,200, and 4,000 respectively. Two were converted from floor and slat systems, the other two built especially for double-deck colony cages.

Here again Felix operates differently from some poultrymen.

"I have two young men take care of these birds . . . 15,000 each. They do all the feeding, egg gathering, and cleaning out manure.

"We don't use automatic feeders. The men can do all the feeding by hand in two hours, and they've got to check the birds anyway. They use a 22-gallon can on a hand truck. Besides, I want them to keep those feeders full . . . so there's 3 to 4 inches of feed at all times. Birds can't produce eggs if they don't have feed at all times. And, too, all our birds are debeaked at 16 weeks, and debeaked birds need plenty of feed in the feeder."

Felix also points out: "Our cage systems are efficient to work with, but we have only 90 cents a bird invested in cages, feeders, waterers, and manure handling systems installed. That compares quite well with some of the costs per bird you hear about.

"The colony cages we make ourselves, from rolled wire, stretched . . . and another advantage besides

cost is that there is no manure build-up at all on our cage bottoms. The 20 x 16-inch cages we buy as a kit and assemble ourselves. I figure by the time I'm ready to retire, the whole system will have cost me a very few cents per bird."

He is also interested in plastic cages which have been introduced in Great Britain.

Manure No Problem

Manure . . . often a problem . . . is handled effectively here.

Two of the houses have pit scrapers and the manure is cleaned out once a week. In the other two houses, manure is scraped daily into two big tanks and cleaned out about once every three months.

Some of the manure is taken by nearby farmers. The rest is spread on ground at the farm, covered with hay and plowed under in the sandy soil. The Paprockis have almost no problem with neighbor complaints, even though the area is becoming quite residential.

What about the future? Felix is undecided whether to handle more hens. He likes to keep a finger on each operation . . . and doesn't care about over-extending and losing control of both egg quality and operating efficiency.

He does think he will move his retail store out by the road, instead of back in by his other buildings, for the convenience of customers. Word has gone around, and the egg customer traffic is picking up at Paprocki's Egg Factory!

Shell Ciovap® Insecticide gives dairymen a fly control program from a single spray



CIOVAP ready-to-use spray contains two fly controls—Vapona® Insecticide and Ciodrin® Insecticide.

The Vapona works first. Kills flies fast. Then spreads out to get flies on walls and ceilings.

The Ciodrin part of the spray works on pasture. Lets cows make the most of grazing time.

Ciovap protects cows from horn flies, houseflies, face flies, and stable flies—all day long. Protects your milk check by stopping the flies that hurt production. Shell Chemical Company, Agricultural Chemicals Division, 110 West 51st St., New York, New York 10020.



What Is A "Strong" Wind?



1966 FAIR DATES

Information supplied by State Departments of Agriculture

NEW YORK

Trumansburg	July 5-9
Yates Co., Penn Yan	July 6-10
Tioga Co., Owego	July 10-16
Genesee Co., Batavia	July 11-16
Ontario Co., Canandaigua	July 11-16
Onondaga Co. Youth	
Syracuse — Horse Show	July 16-17
4-H	July 30
Afton	July 17-23
Hemlock Lake, Hemlock	July 19-23
Brookfield-Madison Co., Brookfield	July 19-23
Chautauqua Co., Dunkirk	July 24-30
Lewis Co., Lowville	July 25-30
Saratoga Co., Ballston Spa	July 25-30
Seneca Co., Waterloo	July 25-30
Clinton Co., Plattsburgh	July 29-Aug. 3
Orange Co., Middletown	July 30-Aug. 6
Broome Co., Whitney Point	July 31-Aug. 6
Jefferson Co., Watertown	July 31-Aug. 6
Boonville-Oneida Co., Boonville	Aug. 1-6
Otsego Co., Morris	Aug. 1-6
Cortland Co. Youth, Cortland	Aug. 2-6
Caledonia-Livingston Co., Caledonia	Aug. 2-6
Orleans Co. Youth, Albion	Aug. 3-6
Chenango Co., Norwich	Aug. 8-13
Niagara Co. Youth, Lockport	Aug. 8-11
St. Lawrence Co., Gouverneur	Aug. 8-13
Allegany Co., Angelica	Aug. 9-13
Oswego Co., Sandy Creek	Aug. 9-13
Greene Co. Youth, Durham	Aug. 10-12
Rockland Co. Youth, Stony Point	Aug. 12-14
Cayuga Co. Youth, Auburn	Aug. 13-16
Chemung Co., Horseheads	Aug. 14-20
Albany, Schenectady, Greene Cos., Altamont	Aug. 15-20
Cattaraugus Co., Little Valley	Aug. 15-20
Delaware Co., Walton	Aug. 15-20
Monroe Co., Henrietta	Aug. 15-21
Essex Co., Westport	Aug. 16-20
Herkimer Co., Frankfort	Aug. 17-20
Ulster Co., Kingston	Aug. 17-18
Erie Co., Hamburg	Aug. 20-28
Franklin Co., Malone	Aug. 22-28
Steuben Co., Bath	Aug. 22-27
Palmyra-Wayne Co., Palmyra	Aug. 22-27
Wyoming Co., Pike	Aug. 22-27
Dutchess Co., Rhinebeck	Aug. 23-28
Washington Co., Cambridge	Aug. 23-27
Cobleskill-Schoharie Co., Cobleskill	Aug. 24-28
Sullivan Co. Youth, Grahamsville	Aug. 26-27
Montgomery Co., Fonda	Aug. 31-Sept. 5
Rensselaer Co., Schaghticoke	Sept. 1-6
Agr. & Lib. Arts of Renss. Co., Schaghticoke	Sept. 1-6
Columbia Co., Chatham	Sept. 2-5
Genesee Valley Breeders, Avon	Sept. 3-4
Dundee	Sept. 7-10
Warren Co. Youth, North Creek	Sept. 19-21
Nassau Co., Westbury	Sept. 24-Oct. 2
New York State Exposition, Syracuse	Aug. 30-Sept. 5

PENNSYLVANIA

Kimberton Fair	July 20-30
Plainfield Farmers Fair, Pen Argyl	July 22-24
Butler Fair, Prospect	July 25-30
Shippensburg Community Fair	July 25-30
Troy Free Fair	July 26-30
Jacktown Fair, Wind Ridge	July 27-30
Lebanon Co. 4-H Fair, Annville	Aug. 1-3

South Lebanon Community Fair, Lebanon	Aug. 1-3
Clearfield County Fair	Aug. 1-6
Goshen County Fair, West Chester	Aug. 1-6
Fayette County Fair, Uniontown	Aug. 1-6
Lycoming County Fair, Hughesville	Aug. 1-6
The Great Dallastown Fair	Aug. 1-6
Farmers & Merchants Agricultural Show, New Bethlehem	Aug. 2-4
Great Allentown Fair	Aug. 5-13
Great Bedford Fair	Aug. 8-13
Wayne County Fair, Honesdale	Aug. 8-13
McKean County Fair, Smethport	Aug. 8-14
Butler Farm Show	Aug. 9-12
Greene County Fair, Waynesburg	Aug. 9-13
Potter County Fair, Millport	Aug. 9-13
Union Co. West End Fair, Laurelton	Aug. 9-13
Stanton Community Fair, New Stanton	Aug. 10-13
Town & Country Fair, Sykesville	Aug. 10-13
Delaware Valley Fair & Farm Show, Milford	Aug. 11-13
Junior Achievement Show, Bloomsburg	Aug. 15-17
Carlisle Fair	Aug. 15-20
Washington County Fair	Aug. 15-20
Huntingdon County Fair	Aug. 15-20
Dayton Agricultural and Mechanical Fair	Aug. 15-20
Morrison Cove Dairy Show, Martinsburg	Aug. 16-19
Lawrence County Farm Show, New Castle	Aug. 16-19
Blue Valley Farm Show, Bangor	Aug. 16-20
Rostraver Free Fair	Aug. 17-19
Kiwanis Club Community Fair, Middletown	Aug. 17-20
Harold Fair, Greensburg	Aug. 17-20
Youngsville Community Fair	Aug. 17-20
Middletown Grange Fair, Newtown	Aug. 18-20
Venango Co. 4-H Fair, Oil City	Aug. 18-20
Westmoreland County Fair, Mutual	Aug. 20-27
Kutztown Fair	Aug. 21-27
Fulton Co. Fair, McConnellsburg	Aug. 22-27
Crawford County Fair, Meadville	Aug. 22-27
Somerset County Fair, Meyersdale	Aug. 22-27
Bullskin Township Community Fair, Wooddale	Aug. 23-27
Adams County Fair, Abbottstown	Aug. 23-27
Gifford Community Fair	Aug. 24-26
Hookstown Grange Fair	Aug. 24-27
Wolf's Corners Fair, Tionesta	Aug. 24-27
Harford Fair	Aug. 25-27
Centre Grange Fair, Centre Hall	Aug. 26-Sept. 1
Wattsburg Fair	Aug. 29-Sept. 3
Indiana County Fair	Aug. 29-Sept. 3
Reading Fair	Aug. 29-Sept. 5
West End Fair, Gilbert	Aug. 30-Sept. 1
Sewickley Township Community Fair	Aug. 30-Sept. 2
Sullivan County Fair, Forksville	Aug. 31-Sept. 3
Greene-Dreher-Sterling Fair, Newfoundland	Aug. 31-Sept. 3
The Great Stoneboro Fair	Sept. 1-5
Alleghany Co. Fair and Western Exposition, Library	Sept. 1-5
Tioga County Fair	Sept. 1-5
Juniata County Fair, Port Royal	Sept. 3-10

(Continued on next page)

Whatever the wind, do "blow in" to your supplier for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oneida	WMCR	1600 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.
Niagara Falls	WHLD	1270 kc.			

Northeast Radio Network

Ithaca, New York

".....a service of C & U Broadcasting Corporation."

Ox Hill Community Agricultural Fair, Home	Sept. 5-8
Carbon Co. Agricultural Fair, Lehigh	Sept. 5-10
Cambria County Fair, Ebensburg	Sept. 5-10
South Mountain Community Fair, Arendtsville	Sept. 6-10
Scott Township Community Fair, Montdale	Sept. 7-9
Upper Perkiomen Valley Community Fair, Pennsburg	Sept. 7-9
Waterford Community Fair, Pymatuning Community	Sept. 7-10
Fair, Jamestown	Sept. 7-10
West Alexander Fair	Sept. 7-10
Spartansburg Community Fair	Sept. 8-10
Pennsylvania All-American Dairy Show, Farm Show Building, Harrisburg	Sept. 12-16
Pennsylvania Black & White Show, Farm Show Building, Harrisburg	Sept. 13
York Interstate Fair	Sept. 13-17
Turbotville Community Fair	Sept. 14-17
Green Township Community Fair, Commodore	Sept. 14-17
Albion Community Fair	Sept. 14-17
Cochran Community Fair	Sept. 14-17
Berlin-Brothers Valley Community Fair	Sept. 15-17
Falls-Overfield Fair, Mill City	Sept. 15-17
Claysburg Community Farm & Flower Show, Bellwood	Sept. 15-17
Gratz Fair	Sept. 19-24
Bellwood-Antis Township Community Fair, Bellwood	Sept. 20-22
The Ephrata Fair	Sept. 20-24
Southern Lancaster Community Fair, Quarryville	Sept. 21-23
Beaver Community Fair, Beaver Springs	Sept. 21-24
Harmony Grange Community Fair, Westover	Sept. 21-24
North East Community Fair	Sept. 22-24
Oley Valley Community Fair	Sept. 22-24
Bloomsburg Fair	Sept. 26-Oct. 1
West Lampeter Community Fair	Sept. 27-30
New Holland Farmers' Fair	Sept. 28-Oct. 1
Sinking Valley Community Farm Show, Altoona	Sept. 29-Oct. 1
Holidaysburg Community Fair	Oct. 4-6
Manheim Farm Show	Oct. 5-7
Morrison Cove Community Fair, Martinsburg	Oct. 5-7
Montour-Delong Community Fair, Washingtonville	Oct. 5-8
Hegins Township Community Fair	Oct. 6-8
Unionville Community Fair	Oct. 13-15
Dillsburg Community Fair	Oct. 20-22
Pennsylvania Livestock Exposition, Farm Show Building, Harrisburg	Nov. 7-11
Uniontown Poultry & Farm Show	Nov. 24-26

NEW JERSEY

Monmouth Co. 4-H Fair, Freehold	July 14-16
Cumberland Co. Fair, Bridgeton	July 18-23
Cape May Co. 4-H Fair, Cape May Court House	July 21-23
Gloucester Co. 4-H Fair, Clayton	July 27-30
Burlington Co. Farm Fair, Lumberton	July 28-30
Ocean Co. Fair, Lakewood	Aug. 3-4
Salem Co. Fair, Cowtown	Aug. 4-5
Passaic Co. 4-H Fair, Preakness	Aug. 4-6
Camden Co. 4-H Fair, Garden State Racetrack	Aug. 5-6
Sussex Co. Farm & Horse Show, Branchville	Aug. 8-13
Middlesex Co. Fair, East Brunswick	Aug. 9-13
Atlantic Co. 4-H Fair, Egg Harbor	Aug. 11-13
Essex Co. 4-H Fair, Caldwell Township	Aug. 12-13
Mercer Co. 4-H & Farmers Show, New Jersey State Fair Grounds	Aug. 12-13
Somerset Co. 4-H Fair, Somerville	Aug. 17-20
Warren Co. Farmers' Fair, Harmony	Aug. 17-20
The New Morris County Fair, Horseshoe Lake, Succasunna	Aug. 21-28
Bergen Co. 4-H Fair, Bergen Mall, Paramus	Aug. 27
Flemington Fair	Aug. 30-Sept. 5
New Jersey State Fair, Trenton	Sept. 17-25

American Agriculturist, July, 1966

FFA CONVENTION

The coveted New York Star Farmer Award for 1966 was won by Kenneth R. MacGibbon (19) a graduate of Walton Central School. The Award includes a \$200 check . . . and for recognition as the top crop farmer among the 130 Empire Farmers present at the Convention Kenneth also received an additional \$100.

Kenneth's father is disabled, and during the four years of high school Ken has had the major responsibility for the 360-acre family farm. The business consists of 64 head of dairy cattle (33 milkers), 50 acres of hay, 15 acres of corn, 8 acres of oats, and 2

acres of sudax. Soils are tested on each field annually, lime and fertilizer applied, and last fall tile drains were installed in an 8-acre field.

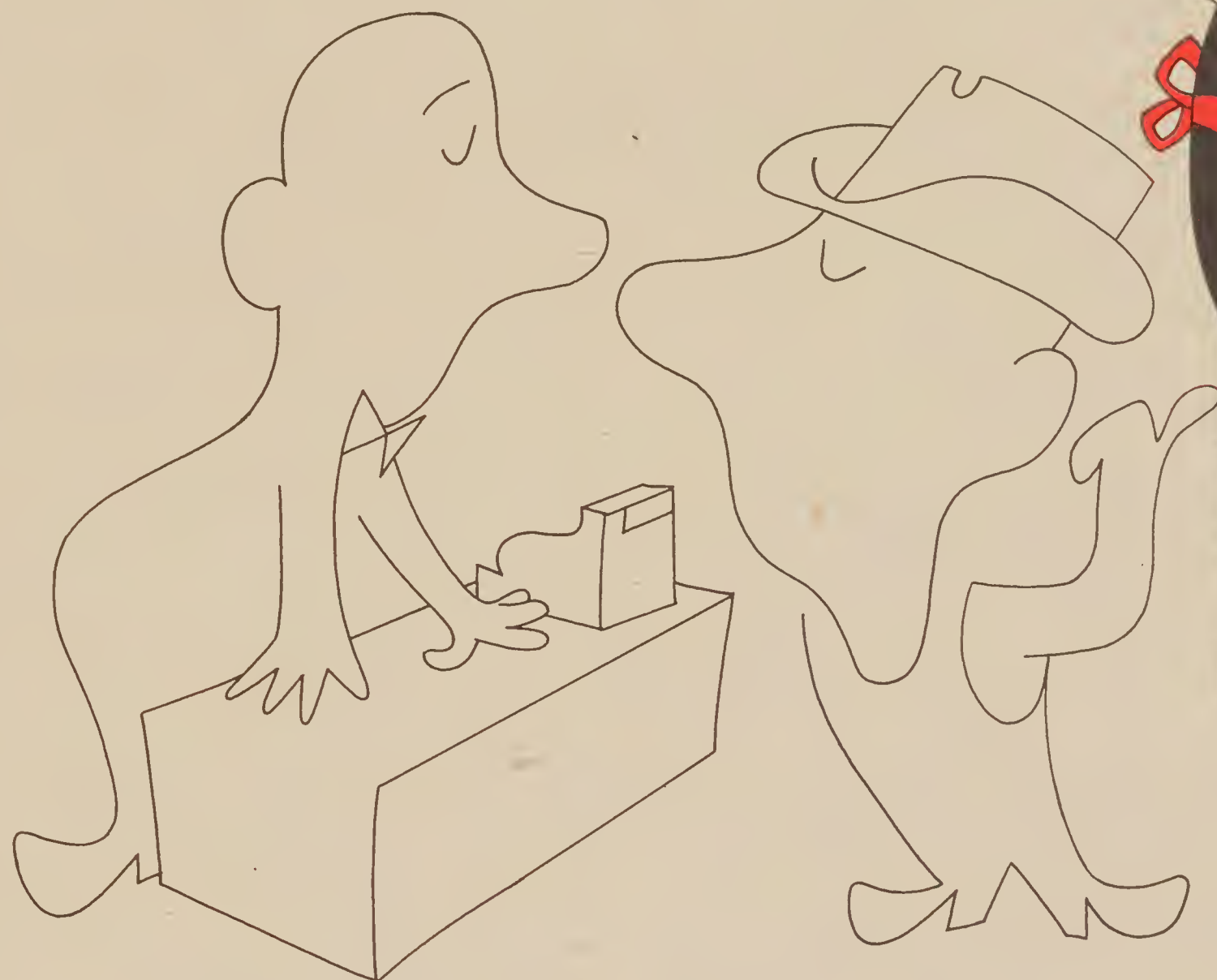
New construction (including planning and building a pole barn), an annual inventory, keeping the cash account and cow milk production records, have been among Kenneth's jobs during his vocational agriculture training. Now, with graduation behind him, he is buying the farm from his father on contract with regular monthly payments.

Winners of \$100 top prizes were as follows: dairy farming, Richard Eaton, Williamson; livestock farming, John M. Good, Perry; farm

mechanics, Ronald E. Davis, Hamilton; and forestry, Thomas W. Catchpole, Bath.

Officers of the New York Association of FFA for 1966-67 are: president, Richard D. Jones, Hamilton; secretary, Robert D. Robinson, Gainesville; treasurer, Earl L. Williams, Holland Patent.

Eight FFA members already established in farming were nominated for the American Farmer Degree. Recommended to the National Convention as the State's most outstanding candidate for Star Farmer of America was Richard Englebrecht (21) of Oriskany Falls. Alternate was Roger Collins, Blossvale.



How you can bring happiness to millions of gallons of water just by saying three little words

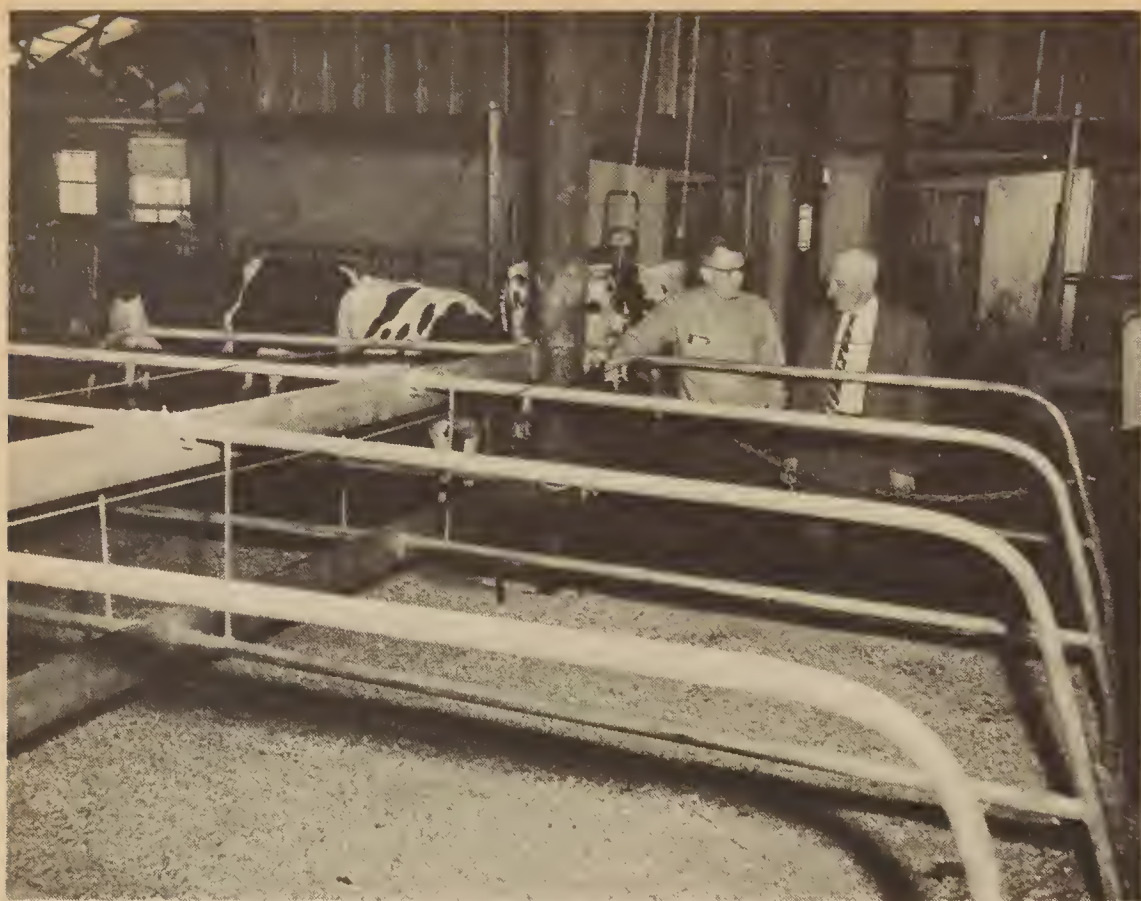
*the words being **Ultra-Line** plastic pipe*

To water, happiness is a thing called Ultra-line. Our special scientific Laughing-Water-Meter has proven that. We assume it's because Ultra-line plastic pipe is so smooth inside that water can run full tilt. And because there's no way it can rust or corrode, the water stays pure. In addition, Ultra-line coilable polyethylene pipe is so strong almost nothing will crunch through. It gives water that secure feeling. And just to make sure of the

security, we give you a non-prorated 10-year Warranty covering complete cost of pipe and installation. Driscopipe Ultra-line is backed by years of research and testing, and approved by the National Sanitation Foundation. It gives you a happy feeling because it's easy to install. Bring happiness to water. Ask your hardware dealer, contractor, or water well driller for Ultra-line.



DRILLING SPECIALTIES COMPANY
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Phil Scudder (left) visits in free-stall area with Dr. L. E. Field of the New York State Mastitis Control Program. Note steel cable, beginning near Phil's left hand, that forces cows back when they arise from lying down in stalls. Chains behind them form handy gate separating herd into two sections.

MASTITIS COUNT-DOWN

This farm has brought the "Strep ag" count down to zero.

by Gordon Conklin

"ONE OF the best setups I know of for a good job of milking and mastitis control is at Phil Scudder's farm near Painted Post." This comment was made to me by Dr. L.E. Field, a veterinarian working with the New York State Mastitis Control Program.

We made a deal to visit the farm together without delay, but not before looking over reports in Dr. Field's office. The most recent one for the Scudder farm was dated December 15, 1965... showed 292 cows, 90 percent of which had completely normal milk secretions. More important, the incidence of *Streptococcus agalactiae*... that particularly dastardly bacterial villain... was zero! As recently as January 19, 1965, the "Strep ag" reading showed that seven percent of the cows in this herd were infected in at least one quarter.

Six Years Ago

In 1960, 105 cows (40 percent) and 205 quarters (19 percent) showed this type of infection. Phil Scudder gives a lot of credit for the improvement to the Mastitis Control Program, but Dr. Field points out that good management, especially milking procedure, is also responsible. They both agree that a new barn, built after a fire destroyed the previous barn in August of 1964, also has had a part through improved cleanliness, dry beds, and comfort... plus practically eliminating teat injuries.

Costing about \$300 per stall, it's built in the form of a gigantic "T" with the stem formed by a free stall area (264 stalls) 104 x 186 feet, and the crossbar a 61 x 264 feeding barn. Incidentally, this is one of the few barns in the Northeast that is landscaped along its outside base with yews, junipers, and cedars.

Cows have free access to silage and hay in the feeding area; grain is fed in the parlor. Feed charts on the wall of the milking parlor indicate how much grain each cow, identified by her neckchain number, should get. Generally, a 3.1 milk-to-grain ratio is used. Grain is a pelleted ration containing 16 percent protein. Latest production figures show a herd average of 13,500 pounds of milk per cow per year.

The herd is split into two, and chain dividers keep them separate in the barn. This means that the same cows are milked by the same man... except when he is on vacation or has a day off, and is replaced by the relief man. The men who milk do not do field work; their job is cows... milking, cleaning up the parlor, feeding, and cleaning the barn.

The milking parlor has two pits, each with a double-three herringbone arrangement. The pit is heated by hot water circulating through pipes in the concrete floor. Parlor floors are coated with an anti-slip compound called metallic epoxy at a cost of \$1.40 per square foot. Two coats of epoxy paint were sprayed on the walls.

Each of the two men milking uses three units and milks 40 cows per hour. Dr. Field comments, "We've timed the procedure in this parlor and find that milkers are left on the cows about four to four-and-a-half minutes on the average."

Weigh jars in the milking system allow for milk transfer without lifting it by vacuum. Phil believes this step has reduced possibilities for udder irritation and speeded up the milking too, so machines are on each cow a shorter time.

First step after cows come into the parlor is to hose their udders with warm water and wipe dry with individual paper towel. Then

a strip cup is used to detect abnormal milk from any quarter. Within a minute of such stimulation, the machine is attached.

Milker units are dipped between each cow... first in clear water and then in a chlorine solution. Inflatons are boiled in lye after a week's use and sit idle for a week while an alternate set takes over. Every three months, both sets are replaced.

Antibiotics are used on infected quarters... cows having udder problems requiring medication are given free access to hay and silage, but their grain ration is halved until the inflammation clears up.

Vacuum levels are adequate as measured at the teat cups, thanks to a big vacuum pump. Mastitis Control representatives check this periodically at milking time, as well as such important items as pulsation interval.

Two hay storage areas (each holding 150 tons) are along one side of the feeding area, which is also split into two. Alongside one feed bunk are steel slats over a 50,000-gallon tank. Manure from one side of the barn is pushed over these slats, and the action of the cows' hooves push it through into the tank. The other side of the barn is cleaned by pushing manure into

openings above two underground tanks outside the building, each holding 23,000 gallons. There is enough capacity to hold a two-week supply of manure.

"I'm sold on liquid handling of manure," says Phil, "even though there have been problems. We find that plenty of water to make a pumpable slurry is a must... sometimes we bring a tankload up from the river to dump in the storage tank before trying to agitate." There are two 1400-gallon spreaders, one mounted on a truck and the other for use with a tractor. Only odors, Phil reports, come when agitating the material in the tanks and spreading it.

In '65, crops on this farm included 275 acres of corn, so there is lots of room for spreading manure! And in a farm operation of this size, coupled with the fact that almost all milk produced is bottled at the farm and sold on retail routes, there is plenty of opportunity to exercise management capacities.

As Dr. Field says, "Mastitis control is only one of the parts of profitable dairying, but here's a farm where management gives adequate priority to this job... and the results show it!"

CORN PROTEIN

PURDUE researchers revealed in 1964 that a mutant gene called opaque-2 produced corn of higher lysine content. Lysine, an essential amino acid, is present in only limited quantities in regular hybrid corn. Experimental opaque-2 corn raised at Purdue contains nearly double the lysine content of the corn hybrids currently produced.

If opaque-2 corn can be produced with a consistent amino acid quality and in high yields on a commercial basis, corn's future value as a major protein source for livestock and in human nutrition will be considerably enhanced.

Experiments

Since its discovery, high lysine corn has been fed experimentally to rats, swine and poultry. Human feeding studies in this country and abroad have also taken place.

Feeding tests with swine suggest that if opaque-2 corn can be produced with a consistent amino acid quality in high yields on a commercial basis, the amount of soybean meal required to balance swine rations can be reduced to a considerable extent.

Numerous research studies have shown that the first limiting amino acid in a corn-soybean meal diet for poultry is methionine. Since opaque-2 corn does not carry increased levels of total sulfur amino acid, the extra lysine and tryptophan would become apparent in a poultry diet only after proper supplementation with methionine. It is possible that opaque-2 corn may have its greatest value in diets for laying hens and finishing turkeys.

Since ruminants have the lowest requirement of all farm animals for high quality protein, it is doubtful

that opaque-2 corn on a pound-for-pound protein basis will be more effective than ordinary hybrid corn; it could be superior, however, in calf rations.

The improved quality of the protein in opaque-2 corn may have its greatest impact in the protein-deficient areas of the world where corn is eaten as a staple of the human diet. Its improved balance of amino acids could decrease protein malnutrition.

MILKING MACHINE HISTORY

Ever since ancient Egyptians used wheat straws as milk tubes in 380 B.C., man has searched for a better, faster way to milk cows. It wasn't until great-grandfather's day, however, that real progress was made. The secret was proper use of vacuum.

The complete history of the milking machine is outlined in a well-illustrated 30-page booklet prepared by Babson Bros. Co., builders of the Surge milking machine, to commemorate their 50 years of milking equipment manufacturing. Considerable time, effort and research went into the production of the booklet which vividly illustrates some of the early methods devised to take the work out of cow milking. Many early prints from the Bettman Archives are shown.

Those interested in obtaining copies of "The History of the Milking Machine" booklet may get them by writing Dept. AA, Babson Bros. Co., 2100 South York Road, Oak Brook, Illinois. Enclose 25 cents to cover costs of handling and mailing.

American Agriculturist, July, 1966



FARM DOLLAR GUIDE

U.S. HATCH of egg-type chicks in first six months of '66 is up about 6% above same period in '65. Hatch in last six months expected to be down about 8%. This should bring increase in production in the third quarter. Price prediction for eggs for year starting April 1 is average, about 1½ cents per dozen below previous year. Feed prices through September are estimated as slightly below last year.

SUGAR BEET acreages are short of expectations in both Maine and New York. ASC office manager at Presque Isle states total beet acreage this year in Maine will be about 3500 (state allotment 33,000 acres). In New York, best estimate is 6 to 7 thousand acres of beets (allotment 29,500 acres).

USDA HAS INCREASED wheat allotment for '67 from 51.9 million acres to 59.3 million. Hopes for crop of 1½ billion bushels in '67. Payment to farmers to divert wheat acreage is out.

On soybeans, USDA goal is 1 billion bushels (double the '60 crop).

Milk production is down. We hear that Administration is toying with idea of boosting price supports again on dairy products.

COLD WEATHER in early May hurt the nation's fruit crop in 16 states. Temperatures were as low as 16° F. in some areas in Michigan. Slight damage to apples was reported in several eastern and mid-

western states, including New York, but it was not considered too serious.

Peaches were seriously hurt in Michigan, Ohio, Indiana, West Virginia, and to a lesser degree in New York and several other states.

The cherry crop (sour and sweet) was badly hurt in Michigan, and there was damage in Ohio, Pennsylvania, and western New York. One estimate is that the New York crop will be reduced from 25,100 tons in '65 to less than the 1962 crop of 19,000 tons when late frost cut the crop.

GRAIN STORAGE walls, floors and ceilings ... should be sprayed to the point of runoff with malathion or methoxychlor before putting in this year's crop. Be sure to check it again to be sure it's rat and bird-proof.

A NEW YORK STATE LAW states that it is illegal to market eggs in a package unless it bears a label containing the name and place of business of the manufacturer, packer or distributor. The name and address of a reliable company or person must be on the cartons of eggs moving to market in the state, printed either on the carton or the sealing tape.

FUTURES TRADING in live beef feed cattle by the Kansas City Board of Trade is underway. Complete rules and regulations may be obtained from Joseph S. Chartrand, secretary of the Kansas City Board of Trade, 4800 Main, Kansas City, Missouri 64112.

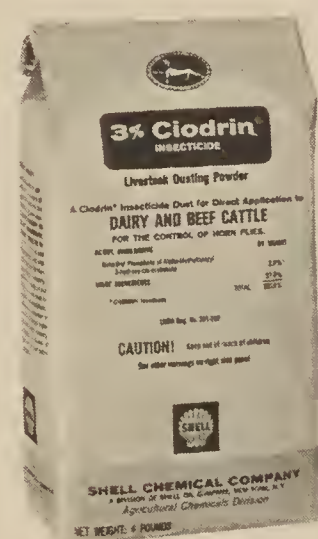
NO REFUND this year on 4 cent-gallon federal tax. Farmers must wait until their income tax returns for 1966 are filed next spring. Before, refund was figured from July 1 to June 30 ... and farmer got cash. Now he must figure tax on gas from July 1, 1965 to December 31, 1966 ... 18 months ... and claim "refund" against 1966 income tax, getting credit instead of cash.

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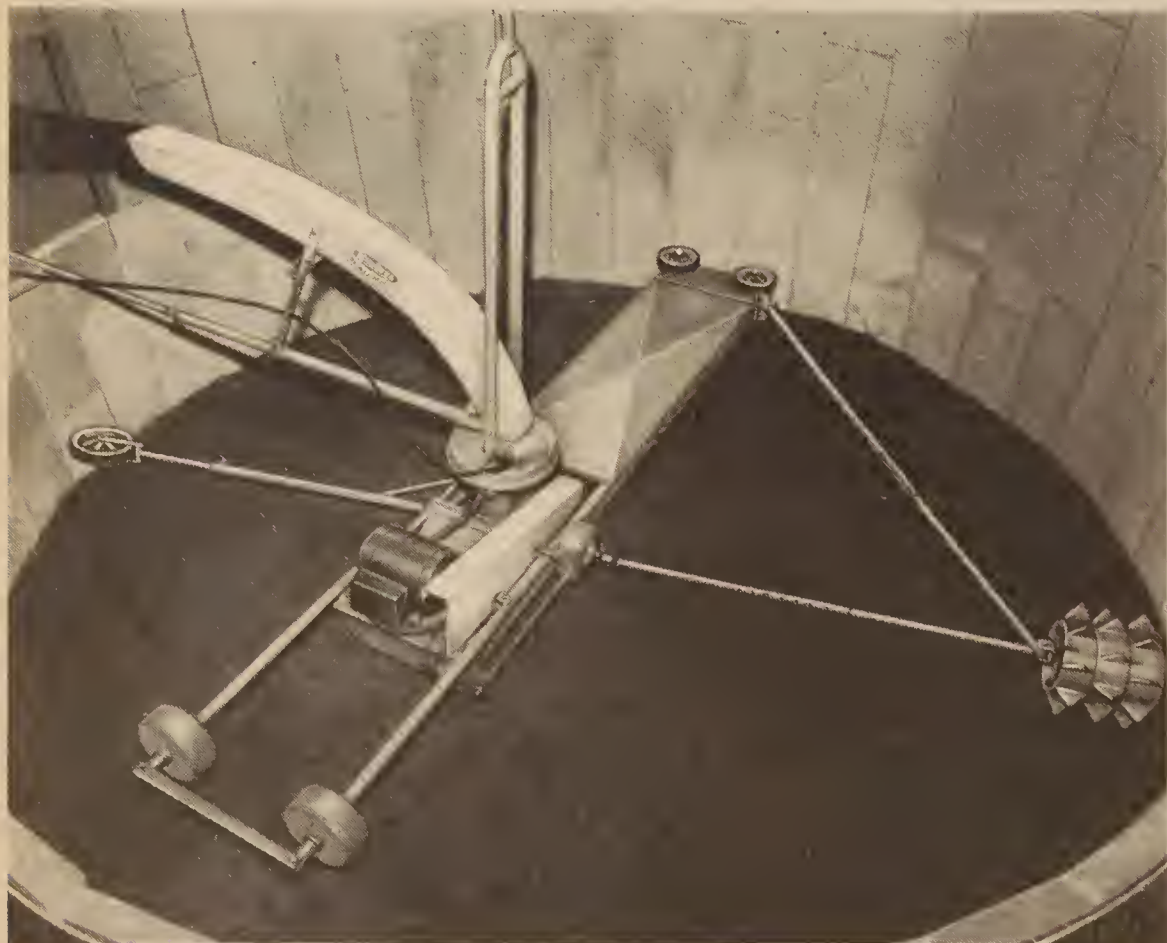


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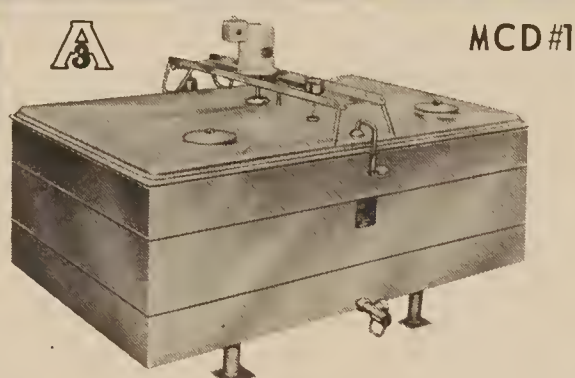
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BIG OR LITTLE HENS?

by Amos Kirby
New Jersey Editor

THE RACE is still on, and the competition is really getting keen. This is no Kentucky Derby . . . it is a race between the big hens and the little hens. In looking for an extra penny profit poultrymen have brought up the question: "Will a big hen lay more eggs than a little hen?"

Charles Dupras, agricultural agent, Atlantic County, sums it up in this manner: "Small hens are the best bet to produce eggs at a lower cost." In support of that position, Mr. Dupras points out that a large hen uses more feed without producing any more eggs.

For instance, a four-pound hen with an annual 50 percent laying efficiency will eat 84 pounds of feed during the year; meanwhile, a seven-pound hen will need 107 pounds to produce the same number of eggs. It requires more energy for the big hen to move than for the smaller one; on this basis, the little hen is in the lead with a saving of 23 pounds of feed.

John Bezpa, Extension poultryman at the College of Agriculture, has a recommendation about when to debeak layers in the high-density flocks. While day-old debeaking has been popular, John has reached the conclusion that seven to fourteen-day debeaking is preferred. Based on field observations, he feels that there is less stress on the chick at the older age, and a more effective job can be done. Also, there are fewer culls in the laying flock as a result of improper debeaking.

A warning: chicks debeaked either day-old or at the seven to fourteen-day period must be re-debeaked before being placed in the laying house!

LEARNED FROM FREEZE

About once in twenty years New Jersey's big fruit and vegetable area has had a freeze . . . and 1966 was it. There is a difference between a 32-degree frost and a 25 to 28-degree one! The most outstanding success in protecting both peaches and tomatoes was the use of "tree-heat," a commercial product still in the experimental stage (mentioned in the May issue of American Agriculturist-Rural New Yorker).

Tests with tree-heat saved tomatoes and peaches from a 32-degree temperature. And when the thermometer dropped to 25 to 28 degrees, up to 50 percent of the fruit escaped injury, while on the unprotected plots the kill was nearer 100 percent.

In the Hammonton area, irrigation applied to strawberries apparently saved the blossoms and newly-formed fruit from injury.

On apples and peaches, it was the observation of Ernest Christ, fruit specialist at the College, that the fruit in the tops of the trees escaped in many instances. Orchards near the Delaware River apparently had less damage, and

those with good air drainage have a better fruit set. John Casella, Swedesboro, employed a helicopter to keep the air stirred over apple and peach orchards, and claims that loss was low.

Heavy losses on early block tomato plants was checked by covering plants with inverted baskets. Covered plants escaped; those not covered were severely injured or killed outright. Late cultivation saved other fields. John Maccarone had cultivated four rows a few days prior to the freeze. After the freeze not one plant was alive, while the uncultivated plants escaped injury.

DIRECT SEEDING

Can tomato growers save money by direct seeding versus the purchase of southern plants? Bob Gardner, county agricultural agent, Salem, reports that on the Kelly Bros. Farm, Woodstown, a trial is being conducted. The seed has been drilled in rows, herbicides have been applied, and mechanical cultivation and machine harvesting are planned when crop is mature.

Many tomato growers have stepped up the plant population on fields for processing to nearly 6,000 per acre. Remember the day when 3,000 was considered the accepted practice? The doubling of plant population has important angles, including larger yields of fruit in August, before the fruit fly appears. And the larger number of plants per acre can give high tonnage before September storms arrive.

Norman Smith, agricultural agent, Bridgeton, reports on a new pest . . . at least, its feeding habits are new. It has been found in asparagus fields in both Cumberland and Salem counties. To most of us a cutworm is a cutworm, but this one is a bit different . . . instead of eating tomato and pepper plants it feeds on asparagus!

It has been partially identified as Buxoa sp. For control, the College entomologists recommend Sevin, the same material recommended for the common cutworm.

ALFALFA WEEVIL RACE

Alfalfa growers from Sussex to Cape May counties are still debating who is ahead in the race to control the weevil.

This has been a year for the weevil! Larval infestations have been high in many instances. College entomologists who conduct weekly surveys in fields report that growers who sprayed closer to harvest appeared to have less overall feeding injury.

If the late application of the pesticide is any guide, then malathion or malathion-methoxychlor are in the lead. Malathion has no time limit, while the methoxychlor-malathion combination calls for a 7-day wait between application and harvest.

American Agriculturist, July, 1966

IT CAN BE ELIMINATED

The author is a practicing veterinarian at Copake Falls, New York.

A FEW DAYS AGO a client asked, "What is a strep-ag-free herd?"

"A herd with udders free of streptococcus agalactia infection on two successive samplings," I replied. "Why do you ask?"

"I saw an ad for a purebred sale, and down where they list certified, accredited, vaccinated, etc. I saw the term 'strep-ag-free.'" He went on to explain that he considered this misleading because "after all, a cow can be clean today and have mastitis tomorrow."

I agreed that this is true... except where strep-ag is concerned. Most mastitis here in the Northeast is caused by strep-ag, and it is the one organism that, if once eliminated, can be kept out as long as no new cows are added to a herd.

Strep-ag can be spread so easily from cow to cow that in most herds where individual sample quarters are taken for the first time one cow out of four will show one or more quarters infected with it. Eliminating it does not eliminate mastitis, but it does eliminate the kind of mastitis that will flare up for no real reason, or for small reasons like over-feeding grain or having a cow out on a cool evening in the fall.

New York, Massachusetts, and Connecticut have programs of mastitis control aimed at eliminating strep-ag. After it is eliminated, if a farmer can rule out or minimize injuries from poor housing, poor milking, and poor milking machines he will have little mastitis.

I have seen herd after herd get rid of strep-ag by following each survey (sampling each quarter and culturing* it in a laboratory) with treatment, and then repeating the survey.

You have to be willing to dump a lot of milk for two or three days; piecemeal treatment over a period of time just doesn't work. The milk you dump will soon be replaced after treatment, because statistics show that a strep-ag-free herd produces up to two thousand pounds more milk per cow per year.

The best example I have seen of the effect of strep-ag was in one of the better herds in our area. A leading feed company was running a series of trials on the effect of heavy grain feedings. Ten dry cows in each of various herds were weighed, examined by a veterinarian, their previous records noted, and put on a program of feeding all they would eat of an excellent dairy ration to see how much they would milk.

This herd had the highest production on its ten cows of any of the dozens of herds in the program all over the East and Midwest. Also, several of the cows produced over one hundred pounds per day

(* A drop of milk is placed on a plate of gelatin and left at body temperature for a period of time. If bacteria are present they grow and can be identified by various processes.)

for three months with no ill effects.

One cow out of the ten, however, just didn't produce; the more she was fed the less she milked. One quarter blew, then another... all in all she was a flop! However, a little investigation gave the answer. A week before this cow freshened a mastitis survey had been done in the herd. The udders on all of the cows felt and appeared normal, but this one cow was the only one of the ten on the program with

strep-ag infection. For some reason she was missed on treatment. Her reaction to heavy feeding was typical for strep-ag cows... she just couldn't take it.

It would have meant a lot more if all the herds on this feeding program had been sampled, but to me this (along with what I have seen for twenty years of mastitis control) indicated that there is a reason to rid herds of strep-ag.

If you have a strep-ag-free herd, buying a cow at a dispersal sale from a strep-ag-free herd is probably all right. However, a cow in a consignment sale has to be considered as a possible carrier unless she is dry.

Some day I hope more consideration will be shown as to how

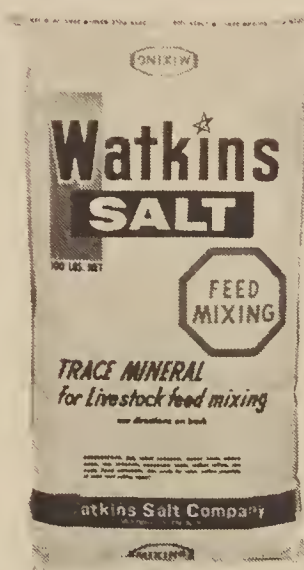
cows are milked at sales. At most of them a common milking machine is used on all the cows. All it takes is one infected cow to infect with mastitis organisms the next three or four to be milked. Isolation, sampling, and treatment constitute the only way a strep-ag-free herd owner can dare buy a replacement; statistics show that seventy-five percent of all purchased additions show strep-ag infection. Think it over!

As mentioned before in this column, dairying is a rough, tough business. Anything you can do to increase income and cut expenses will help. Getting a strep-ag-free herd can make you money. Call your veterinarian and talk with him about it.



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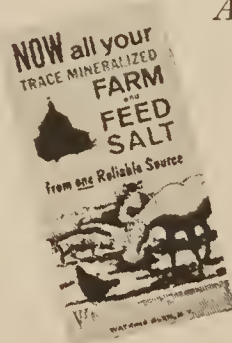
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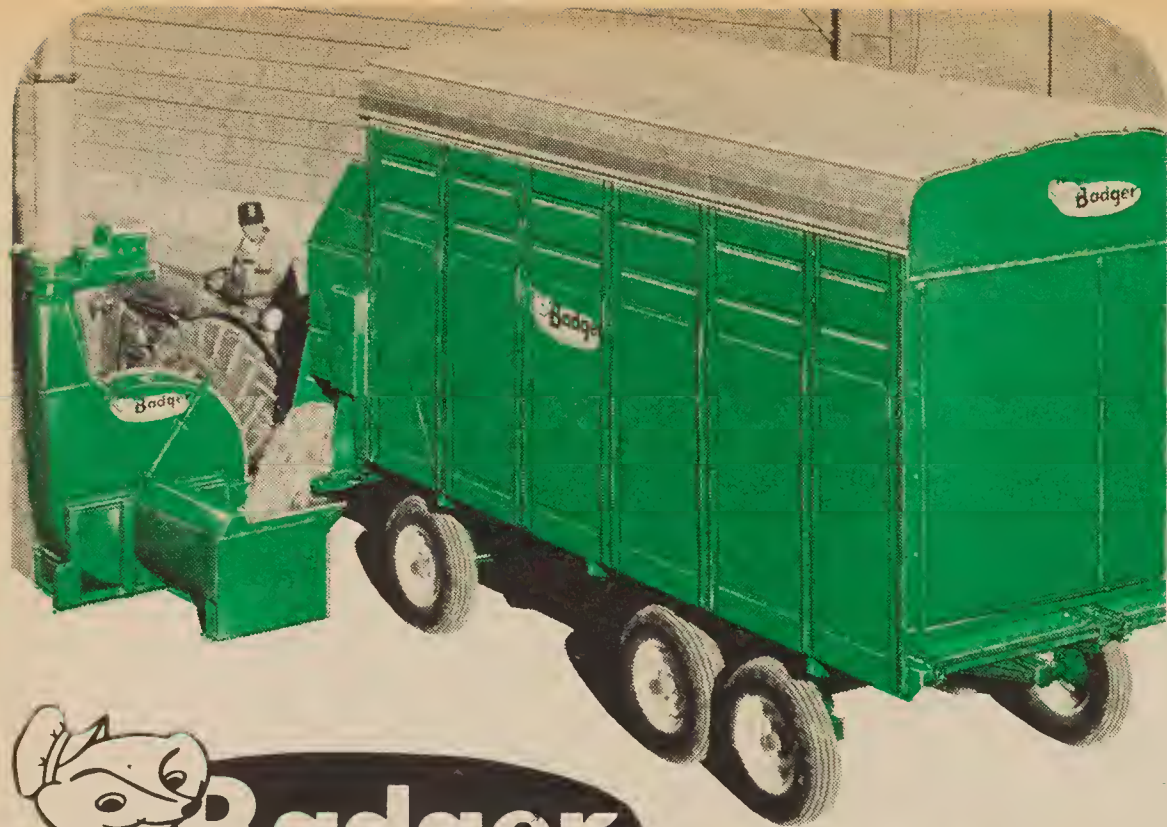


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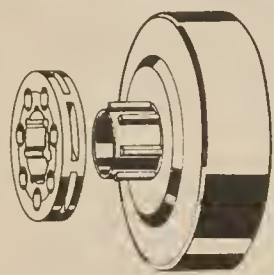
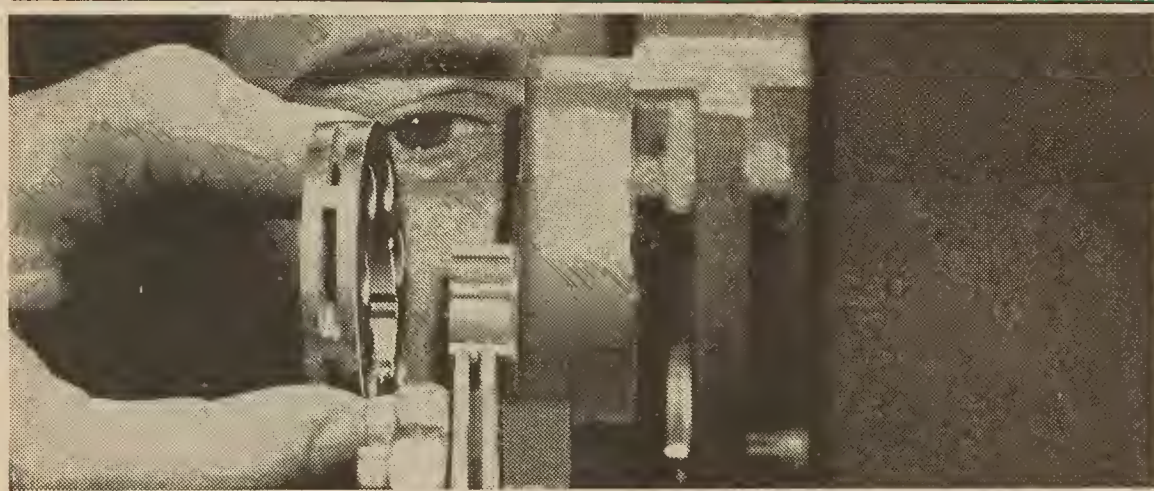
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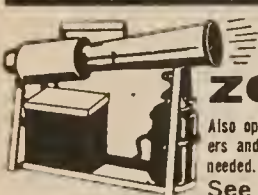
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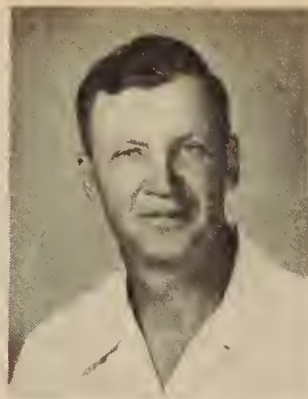


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Gayway Farm Notes

by HAROLD HAWLEY

FENCES — MOSQUITOES

You can't win 'em all . . . and neither is all lost in a bad situation. The late cold spring kept the mosquito hatch down to the point where for once we got the fences checked over before it became a question of whether the work or the mosquitoes were worst. In some years, fighting off the mosquitoes has been so bad that we have come to dread fencing. I can't say that we enjoyed it this year, but it really wasn't bad.

FREEZER BURN

Doris occasionally mentions freezer burn when a package of meat or poultry becomes partially unwrapped and the contents get dehydrated. I'm not sure the term "burn" is quite correct, but we all know what it means and does.

On the morning of May 9 I spread fertilizer on the hayfields, starting at about 5:30, temperature 28 degrees. I guess I should have thought about it but didn't, never before having had occasion to fertilize seedings in freezing weather. Anyway, there was enough frost on the alfalfa so that where the tractor and spreader tires ran there was noticeable damage to the crop. Looking at the field a week later it was a cinch to tell where I had stopped at 7:30 for breakfast. By the time we started again after breakfast the frost was off and there was no further burning.

An interesting further observation was that on a field of older seeding . . . which was taller and with more grass showing . . . there was noticeably less damage than on the shorter new seedings. Pos-

sibly the extra growth on the older plants held the ground heat from the day before a little longer, and therefore there was a little less freezing on those fields. Anyway, it's live and learn not to spread fertilizer or drive a tractor on a hay field that's got a good start but is crisp with frost.

TAKING STOCK

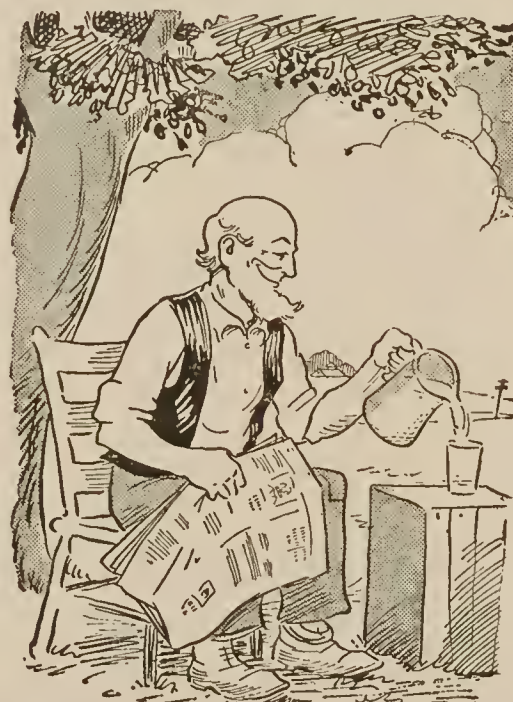
Recently we had the pleasant experience of being present when our community turned out to honor two long-time public servants who had served with distinction in our school system. Comments by one of them relative to the joys, pains, and rewards of his job over the years, and the difficulty of measuring achievement, got me to thinking about this whole business of what we do in life that is really worthwhile.

All too often we assume that because a man has been successful in business (that is, has made money) he has had a rich and rewarding life. Let's have no misunderstanding . . . I believe in profits and in making money as long as this isn't the main goal in life. So, if we recognize that being successful in one's chosen line of endeavor is but one measure of the worthwhileness of a life, what further yardsticks do we select?

I'm less than enthusiastic about using a man's record of public service unless we examine it pretty carefully. Seems like a great many committees and boards and trusteeships are struggling along in spite of some "public-spirited" people who accept the honor without assuming too much of the responsibility that goes with the job. Poor

(Continued on next page)

The Song of the Lazy Farmer



the sun until you boil; you've got to work at easy pace, a burned-up brain you can't replace. And if you're one of those, like me, who just can't stand humidity, there may be weeks this time of year when you owe those who hold you dear the courtesy of keeping fit by doing not a single bit of work that keeps you on your feet and causes blood to overheat.

I'll wait 'till wind is in the north before I dare to venture forth to do my work; and while it's hot I'll just find me a shady spot where I'll be certain that the heat won't cook me like a piece of meat. That way, Miranda need not fear that maybe I will not be here for years to come; I'm sure that she would rather I lived sensibly than work so hard amassing wealth that I wind up with broken health. Besides, she thrives when it is hot, so when I have to rest it's not so hard to keep things under way, she simply works a longer day.

American Agriculturist, July, 1966

attendance and lack of interest and effort can largely wipe out the great good that years and years in a position of public trust might have brought. I guess all I am saying is that it is what the person did in these positions of trust rather than his years of service that is important.

History always seems to give a long and grateful nod to the reformers . . . or at least to those whose good works lived after them. Only with the help of these innovators and reformers do we get rapid change and, hopefully, progress. Maybe it's too soon to judge, but it sometimes seems that many of our contemporary reformers and "do-gooders" are far too much inclined to want revolutionary changes rather than evolutionary progress. This leaves me a little doubtful as to the ultimate progress they bring about and, therefore, how much of a gold star should be put beside their names.

Then, of course, we know people who in their quiet way are the friends by the side of the road or the good neighbors. Without much fanfare they, too, make the world a little better place in which to live.

Obviously, we are all different, with our own special interests and talents . . . and presumably should be judged according to how well we have used the talents. Most of us are privileged to know very few really-exceptional people, but we all know some ordinary people who have done very exceptional things with their talents. Some-

where along the line they not only learned to make friends and influence people for the better, but they got moving themselves, and by example, kindness, and leadership helped others. Such persons have a pretty serious claim to the title Successful.

WASTE LAND

There is a certain amount of land around any set of farm buildings which is more or less wasted. We've been impressed by how much this begins to run into when additional buildings are put up, such as cribs, sheds . . . and now a separate cow barn. All this waste land becomes an additional job. It's too small to pasture, not handy to mow, and an eyesore if not tended.

In our case the waste goes even further. A long lane is no longer needed now that the cows don't go back to the pasture. Most of the pastures have been plowed and used, but so far we've not got the fences out so the lane can be salvaged. We are really looking forward to the day when all these fences can be taken out, not only along the lane but around the various fields. When it's time to pasture corn stalks we will run a little electric fence, and remove it when the need is gone. Permanent fences that aren't used every year, and therefore aren't repaired each year, get to be useless and unsightly in a big hurry.

Food For The Spirit



by Robert Clingan

TRIED IN THE FIRE

Dr. David McLennan, pastor of the Brick Church, Rochester, New York, has told his television audience the story of a framed statement that Arthur Godfrey has hanging on his office wall. The words are these: "The Fire, Lord, Not the Scrap Heap."

Do these words make sense to you? They do to Arthur Godfrey because he knows the story behind them . . . and because his own life has been tested by fire.

The words came originally from a blacksmith. Someone had questioned his faith in God. The questioner asked: "How can you believe in God when you have experienced so much personal misfortune?"

The blacksmith answered in words something like these: "When I take a piece of metal in my tongs I hold it in the fire. While it is still red hot from the live coals, I take it from the fire and hit it with a hammer against the anvil. If this test proves it to have the right temper, I return it to the fire and shape it into something useful. If it fails the test, instead of returning it to the fire to be fashioned into something worthwhile, I throw it on the scrap heap. I believe the

misfortunes of my life are the tests I must pass . . . and I hope to prove worthy."

Out of the story of the blacksmith Arthur Godfrey found the motto for his office . . . "The Fire, Lord, Not the Scrap Heap." For him this motto has been more than a pious hope, a sentimental bit of prose, or even a "conversation piece." These words and this story have been tested and proved in the experiences of his own life.

At one time he was in an automobile accident, a head-on collision with a truck. He was almost pronounced dead at the scene . . . in fact, he didn't regain consciousness for two weeks. The first words he heard were those of a nurse praying for his recovery. Later in his career he had a bout with cancer, and managed to bring it under control and resume his public life.

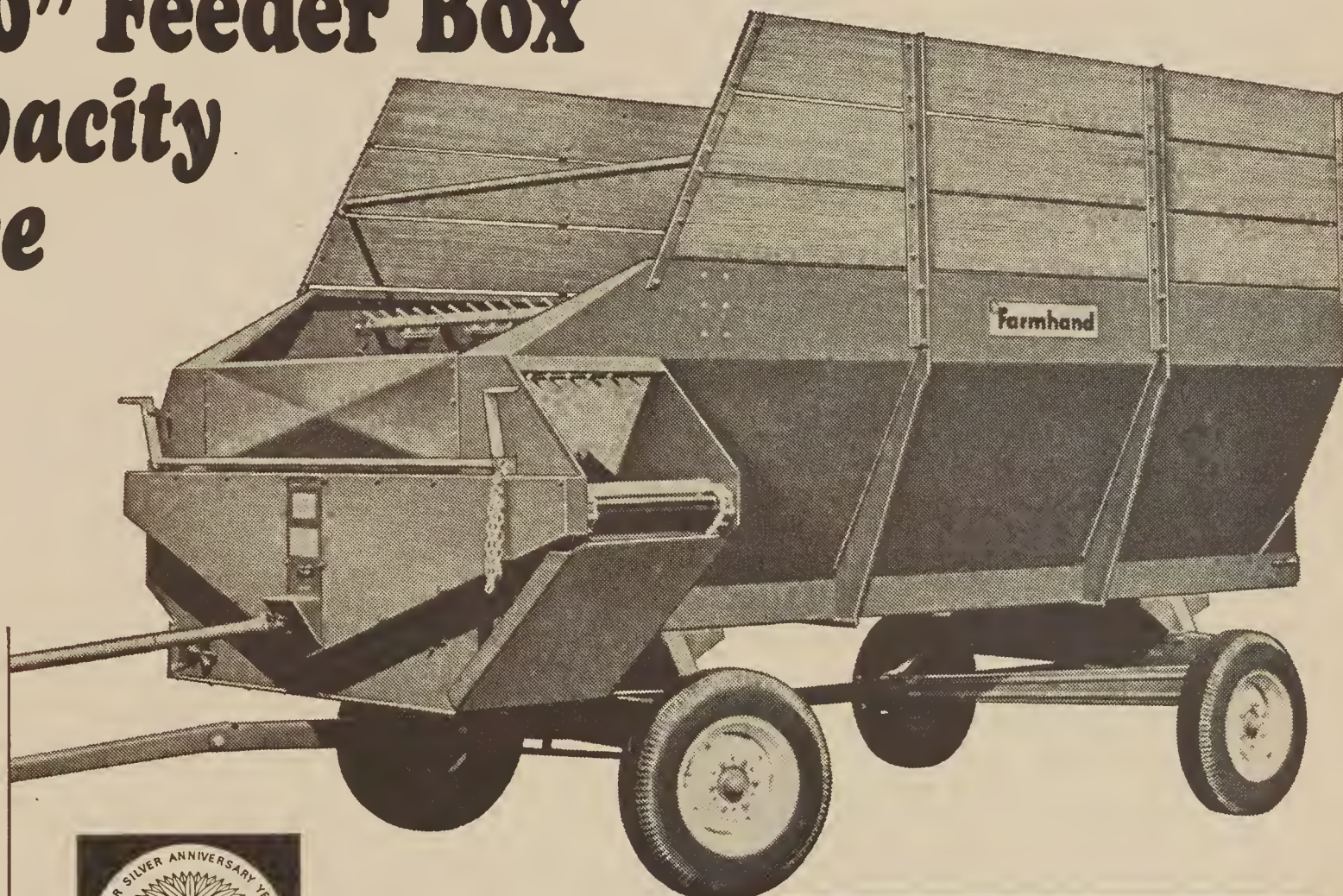
In all of these dreadful experiences of loss, shock, and having his very life threatened by accident and disease, he came to feel that he was simply being tested. He believed that in each test he faced either the fire of being prepared for greater usefulness, or the scrap heap for the unworthy.

So the motto on his wall became something that shaped and inspired his life. How wonderful it would be if all of us could face life's adversities . . . even those of our own making . . . in this spirit. Test us, Lord, prove us . . . and may we prove worthy of the fire and not the scrap heap!

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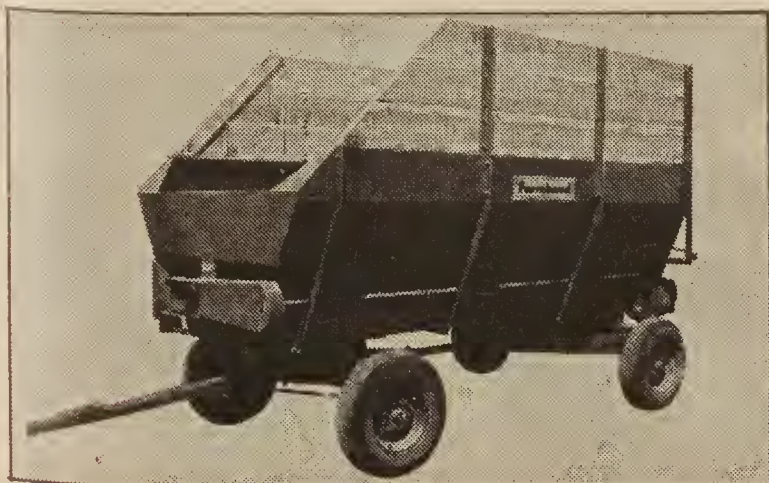


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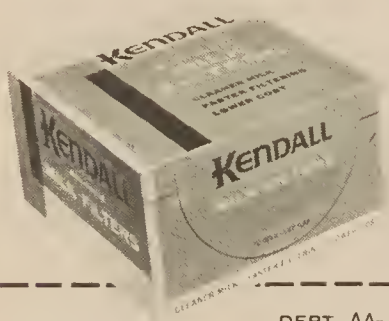
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EMPIRE LIVESTOCK WINNERS

SPRING of the year is a busy time... busier than usual, that is... for the advisory committees of the Empire Livestock Marketing Cooperative at their markets around the State.

That's the time of the annual patrons' meetings... and the highlight at each meeting to the young folks is the drawing which

will bring together some lucky youngster and some equally-lucky young animal... calf, sheep or swine... or their equivalent in cash.

So the children teeter on the edges of their chairs until the big event... and this is how it worked out for 1966:

At the Bath Market, Paula Richtmyer (11) Cameron Mills, New York, was the fortunate winner of a certificate toward the purchase of a registered calf. Paula is a sixth-grade student at Valley Elementary School, Addison.

Also a winner at Bath was Lavern Oles (10), Jasper. He got a certificate toward the purchase of a purebred gilt or barrow.

From the meeting in Bullville, Marguerite Vellenga (11), went proudly home with a five-months-old purebred Holstein calf donated from the Rokel Farms herd owned by S. Robert Kelder... who is also chairman of Empire's Bullville advisory committee.

Elaine Volkman (13) is in the 8th grade at Churchville-Chili Central School. Her award at the Caledonia meeting was a certificate toward the purchase of a purebred dairy heifer calf.

Other winners at Caledonia were: Bruce Longbine (13), son of Mr. and Mrs. Walter Longbine, Bergen, who also won a certificate for a beef-type steer or heifer calf; Royal Purdy (10), Canandaigua, a certificate for a purebred gilt or barrow; and Patricia Grant (12), who won a certificate for a registered ewe or wether lamb.

The winner at Dryden was David Hatfield, a third grader who lives in Ludlowville. He received the purebred Holstein calf donated by Mr. and Mrs. Russell Luce of Groton... whose son David won a calf at the same meeting last year.

At Gouverneur, Clark W. Wainwright (17), a sophomore at the Hammond Central School, living at Rossie, was winner of an award to apply toward the purchase of a purebred heifer calf, while at the Oneonta meeting Kathleen Mason (11), daughter of Mr. and Mrs. Nicholas Mason, Laurens, was the winner of the heifer calf donated by the Greenview Farms, Guilford, owned by Paris Ives and Son. Kathleen is a fifth-grader at the Laurens Central School, and a member of the Busy Bluebirds 4-H Club.

Last but not least comes Watertown, where the winner was David Clark (13), Cape Vincent. David's award was a certificate toward the purchase of a purebred heifer calf of any dairy breed.

So there it is for another year, and during the coming twelve months these young people will work hard on and with their animals, so that when the annual meeting time rolls around in 1967 they can hear the approving "Well done" of the judges.



Paula Richtmyer



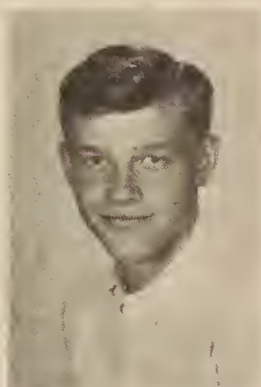
Lavern Oles



Marguerite Vellenga



Elaine Volkman



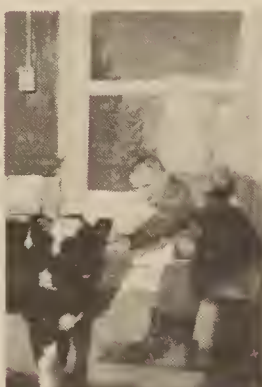
Bruce Longbine



Patricia Grant



Royal Purdy



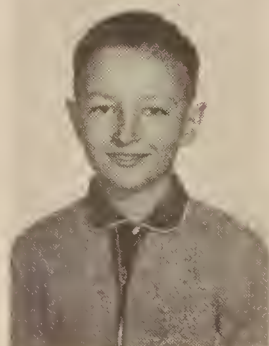
David Hatfield



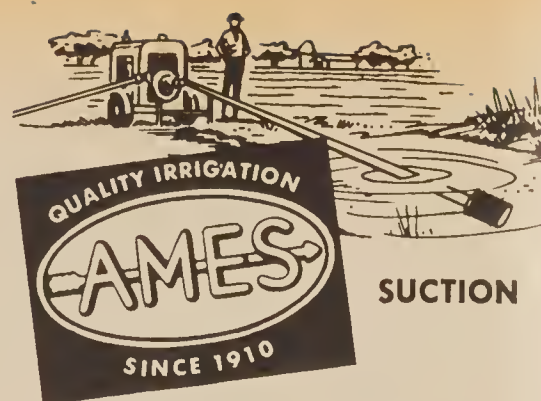
Clark Wainwright



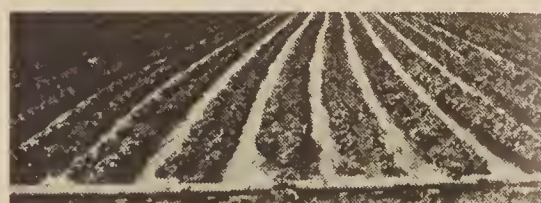
Kathleen Mason



David Clark



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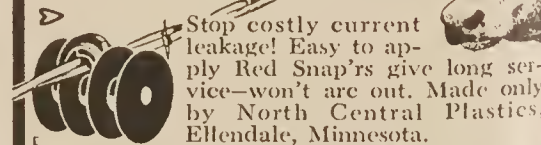
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News and Views from NEW YORK AND PENNSYLVANIA



Heifer Project — The sixth major shipment of several kinds of purebred livestock provided by New York farmers left Ithaca late in May for shipment to Haiti. Six of the nine Holstein heifers were donated outright from the herds of Paris Ives, Bainbridge; Roland Schallenberg, Westernville; Don Turk, Pennellville; and Lewis S. Bell of Interlaken. Four Taggenberg goats in the shipment came from the Robert Harris farm at Fabius.

A total of three male and four doe New Zealand White rabbits were provided by Ronald DeHasse of Munsville; Fred Johanssen, Oneida; Charlotte Bowley, Cicero Center; and Kathy Carr, Homer. Producing five litters a year, of up to a dozen young in each litter, these long-ears really know their multiplication tables!

Sales Manager — American Breeders Service, Inc. recently appointed Albert L. Wright, Honeoye Falls, New York, as ABS District Sales Manager in western New York. He will be responsible for 16 technicians, 2 distributorships, and direct herd sales.



Albert Wright

65th Edition — The State Department of Agriculture has begun distribution of the annual Pennsylvania Crop and Livestock Summary ... for the 65th time. Outstanding among the records is an all-time high of \$839,099,000 in total cash receipts of Pennsylvania farmers ... \$5,740,000 more than the previous mark set in 1951. This includes livestock and livestock products, crop sales, and federal farm program payments of \$22,018,000. Milk accounted for 40 percent of the total farm income ... \$334,409,000, highest on record.

Plants Closing — It is reported that the following plants will close this summer and milk receiving will be transferred to other facilities: Sheffield plant at Norwich; Smyrna Union Cooperative; and West Winfield Dairymen's League plant.

Pro-Fac Declares Dividend — A 5½ percent dividend on both common and preferred stock has been announced by the Cooperative, to be paid on July 15.

Valuable Genes — "High Meadows Conqueror," a registered Guernsey bull not quite two years old, has been sold for \$75,000. This is the all-time high price paid for any animal in the Guernsey breed. Purchase was by Northern Ohio Breeders Association, Inc., an animal breeding organization

with headquarters in Tiffin, Ohio.

Big Orchards — Donald Green, Sr. reports that acquisition of property in 1964 and '65 have increased the Don G Orchards near Chazy, New York, to 1500 acres. This includes 320 acres of apple orchards (80 percent McIntosh). Plans call for planting several hundred more acres of apple trees. In addition, Don is manager and part-owner

of the Chazy Orchards, with its 600 acres of orchards (90 percent Macs), making it the largest McIntosh orchard in the world.

Combined annual output of these orchards is close to 500,000 boxes of apples ... and a potential 750,000 boxes in ten to fifteen years. Fruit produced here is marketed all over the world.

In '65, the crop was 90 percent damaged beyond salvage by hail on August 7. Biggest problem in 1966, Don reports, involves shortage of labor for picking ... direct result of embargo on import of foreign labor.

Superior Service — A unit of the Pennsylvania Department of Agriculture has been presented this

year's Superior Service Award by the USDA. The Bureau of Markets, and its director, Clarence W. Funk, were so honored, and eight employees of the Bureau also were awarded Superior Service Award certificates. The awards were made for the Bureau's efforts in successful lamb marketing and Lamb-B-Q promotion programs, which helped improve the economic position of lamb producers, and resulted in higher quality lamb for consumers.

Officers — Officers of the New York State Purebred Dairy Cattle Association for '66 are: Charlie Goodwin, Guilford, president; Adelbert Haynes, Tully, vice-president; George Rich, Franklin, secretary-treasurer.

NEW! SUPER-POWERED LIGHTWEIGHT CHAIN SAWS

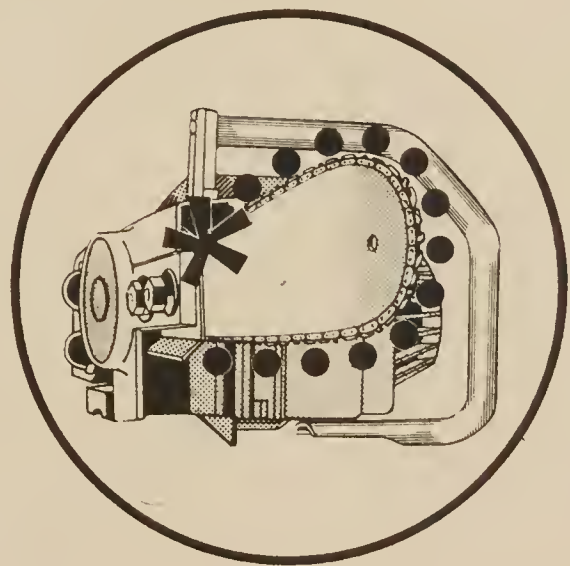
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We wish it were possible for every one of you to go on our Mediterranean-Holy Land Tour with us this fall. Just think of seeing with your own eyes all the wonderful and fascinating places you have read about and always wished you could visit! And when you travel with a friendly American Agriculturist party, you are assured of the happiest, most care-free kind of a vacation imaginable.

The dates are September 27 to October 19, three weeks of glorious fun and exciting adventure! The long-ago past becomes real to you, as you see the Western world's most celebrated and oldest cities with their ancient architecture and art treasures, olive groves and vineyards, twisted pines and leaning cypresses that have been shaped by centuries of wind.

A few of the places we will see on this vacation are Rome, Istanbul, Beirut, Cedars of Lebanon, and Tripoli. In Egypt we will visit Cairo, Luxor, the Pyramids and Sphinx.

Our Holy Land trip will include Jerusalem, Bethlehem, Mount of Olives, Jericho, Garden of Gethsemane, the home of Mary and Martha in Bethany, and many other Biblical scenes. We will also visit the modern city of Tel Aviv in Israel where we'll see the Arab quarter, Helena Rubenstein Museum and other sights of this remarkable city.

Next will come Greece, the grand climax of our trip, and our Athens hotel commands a beautiful view of the Acropolis. A highlight of our visit is a four-day trip through the beautiful Greek countryside, stopping at many historical places—Corinth, Mycenae, Olympia, Mount Parnassus where the mythological Zeus held forth, Delphi, and the fabulous ruins of the Oracle of Apollo.

Our vacation concludes with a day at leisure in Athens for shopping or more sightseeing before making the short hop to Rome to board our Pan American jet which will take us nonstop to New York.

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Hawaiian Holiday

Also, it's still possible for you to join our fall Hawaiian Tour group which will leave home October 7 and return the 23rd. This tour has been planned so that you will be in Honolulu for the colorful Aloha Week celebrations. In addition, of course, you will see the beautiful and famous sights of the four best-known islands—Hawaii, Maui, Kauai, and Oahu.

There's also a "bonus" day in Portland, Oregon, and since this is an air tour, it takes just a little more than two weeks. Ask for the Hawaiian Holiday folder too when you write for information about the Mediterranean Tour.

Gordon Conklin, Editor
American Agriculturist
Box 370-T
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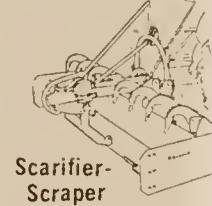
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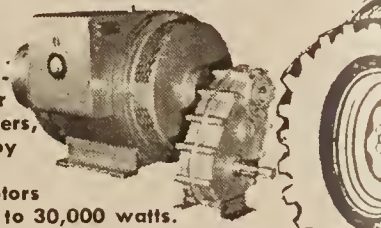
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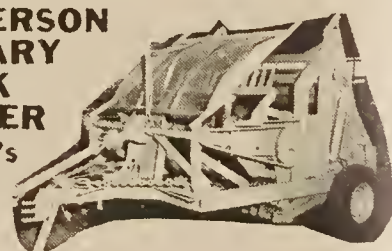
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American Agriculturist, July, 1966

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FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

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AKC AIREDALE, WEIMARANER, Wire Fox Terrier, Min. Schnauzer Puppies. Tourtellotte, Morris, N. Y.

American Agriculturist, July, 1966

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WEEDER CHINESE, EMBDEN, Toulouse, African Goslings, Muscovy, Pekin, Rouen, Buff, Khaki, Crested Ducklings. Guineas. Blyler Hatchery, Gratz, Penna.

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REGISTERED POLLED HEREFORDS, two year old and yearling bulls; open and bred heifers. Clean pedigrees, proven bloodlines, certified and accredited herd, performance records available. Real quality cattle. Visitors welcome. A. B. Price, Keller Road, Clarence, N. Y.

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RAISE RABBITS SUCCESSFULLY by knowing facts. 48 page illustrated book describing 25 Breeds. Housing, breeding, feeding, markets, marketing, etc. 25 cents. American Rabbit Association, 28 ARBA Building, Pittsburgh, Penn.

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SUFFOLK Rams transmit superior carcass characteristics; strong sturdy lambs; and bring higher production profits. National Suffolk Sheep Association, Box 324-RN, Columbia, Mo.

DUE TO ILL Health am forced to sell my entire flock of Purebred Suffolk Ewes. Henry H. Christensen, RD#1, Geneva, New York. Phone 789-1697.

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MONTHLY MARYLAND FEEDER Pig Sales 1:30, 2nd Monday—Caroline Sales, Denton: 4th Thursday (4th Fri.—Nov.)—Rudnick & Sons. Galena Vaccinated—health inspected—graded pigs sold by pound to highest bidder. Maryland Swine Producers, Fairgrounds, Timonium.

PUREBRED YORKSHIRE GILTS and proven sows, bred for August and September litters from National Champion Show Winners. Bred to Certified Meat Type Boars. Both purebred and commercial breeders can fill their needs. Phone 717-658-6719. Brooks End Farm, Reno H. Thomas, Beavertown, Pa.

REGISTERED POLAND CHINA January farrowed boars, with extra ham and growing ability. Richard Crye, Avon, New York. 716-926-8502.

ALL SWINE BREEDERS are Invited to the Hampshire Picnic 10:30 July 10. Home of Ralph Blik, Williamson, N. Y. Bring dish to pass. Mrs. Malcolm McColl, Sec.

GRADED FEEDER PIG AUCTION—August 5, 1966, 8:00 P.M. Geauga Livestock Commission, Middlefield, Ohio. 1000 head of mixed Breeds, sold by weight, inspected and vaccinated for Cholera by licensed Vet. Bank reference required. For more information call Tom Givan, Ph. 632-6681. Northeast Ohio Feeder Pig Committee.

YORKSHIRES—BREEDING STOCK by PR and CMS Boars. Brucellosis accredited. Umbrian Farms, Lafayette, New Jersey, Telephone 201-383-5441.

QUALITY FEEDER PIG SALE

Thursday, July 21, 1966

EMPIRE LIVESTOCK MARKET
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All pigs sold are locally produced and eligible for inter-state shipment.

Sponsored by
New York Swine Improvement
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NEW SOMATO-STAPH mastitis vaccine! A totally new product! Now control Staph Aureus organisms associated with mastitis. Staph Aureus organisms are the most difficult to treat of the major groups of bacteria causing mastitis. Vaccinate heifers intramuscularly with 5cc at 6 months. Give a booster injection (5cc) every 6 months thereafter. Mature cows 5cc intramuscularly and repeat in 14 days for maximum protection. Follow with a booster injection every 6 months. Per 25cc \$3.75, 50cc \$7.00, 250cc \$32.50. Order from Anchor Serum Company of New England, Dept. A-7, Topsfield, Massachusetts 01983. Write for free veterinary supply catalog and health guide.

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WANTED: TOP QUALITY timothy mixed or timothy hay; also straw and mulch—ten ton lots. "To be picked up." Write Box 141, Plainview, N. Y.

GOOD QUALITY HAY delivered anywhere. Marcus Delong, Romulus, N. Y. 14541. Ovid 869-5675.

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EXTRACTED HONEY — Clover, Buckwheat or Fallflower, 5 lb. container \$2.30. 3—\$6.00; 6—\$11.00. Prepaid 3rd zone. We use stainless steel extractors and tanks. Lang Apiaries, Box A, Gasport, New York.

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A powerful, penetrating antiseptic and absorbing agent for stubborn hoof infections. Easy to apply—pour it on. No bandage required. \$1.25 at drug and farm stores or write.

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ONE OF THE BEST! 191-acre New York beauty comes complete with 45 Holstein cows, 14 heifers, 11 calves, 3-unit milker, 500-gal. bulk tank, 3 tractors, full line up-to-date equipment Included! Owner reports \$35,000 income last year. Herd reportedly averaged over 16,000 lb. milk per cow last year! 145 tillable acres, ponds, springs, brook, 2 wells, good fencing. All buildings in excellent repair. 8-room home, bath, central heat, 2 picture windows, open stairway. 36x108 barn with 47 free stalls, attached feeding area, 6-stall milking parlor completely equipped, automatic silage handling and feeding, heifer barn with overhead hay storage, silo, Surc to please the most particular dairyman... hurry at \$89,000, terms. Free... Big 160-page catalog. All types real estate coast to coast! United Farm Agency, 501-AA Fifth Ave., New York, N. Y. 10017. Area code 212; YUkon 6-1547.

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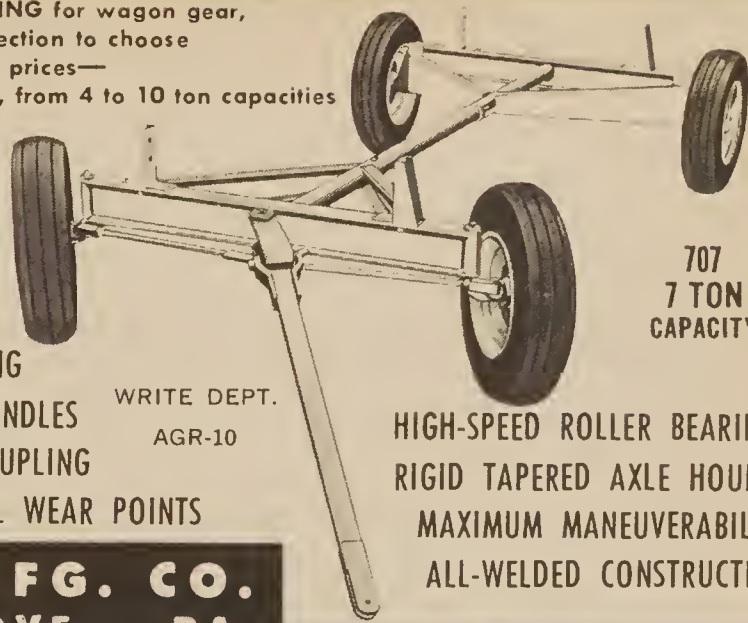
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Mostly, short training sessions of about one-half hour yield greater progress than long workouts. Learning is rapid with short teaching periods, given twice daily.

To learn more about horse training and care, study Penn State's correspondence course. Anyone can enroll and receive a course copy simply by sending his name and address with \$2.25 to Light Horses, Box 5000, University Park, Pennsylvania 16802.

HORSE PULLS

Horse pulls will take place at the following New York fairs: July 6, Trumansburg; 7, Penn Yan; 10, Turin; 13, Owego; 16, Canandaigua; 20, Hemlock; 21, Brookfield; 26, Lowville; 31, Middletown. August 4, Boonville; 5, Watertown; 6, Whitney Point; 9 and 10, Sandy Creek; 18, Frankfort; 20, Grahamsville; 23, 24, 25, Hamburg; 28, Rhinebeck.

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WANTED — HORSE DRAWN CARRIAGES, surreys, wagons, coaches, sleighs, old cars. Send price, description and picture, if possible, in first letter. Arnold G. Carlsen, 77 Anderson Street, Hackensack, New Jersey.

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NATURE PLACE MATS

by Dorothy Welty Thomas

If you would like to have some place mats that are "conversation pieces," here is a way to get them!

First, gather some leaves, ferns, flowers, etc., and press them between layers of newspaper, with a weight on top. Let them stand about two weeks.

In the meantime, send for the butterflies if you want them on your mats. The address is given at the end of this article, and it takes at least three weeks to get delivery. There may be other places where you can buy butterflies, but this is the only one I know of. They cost \$1.00 a dozen, and you get an assortment of colors and shapes.

Then, you will need contact paper, which is sometimes sold under the name of "Magic Cover" paper. It is sticky on one side and comes with a backing sheet. The paper is 18 inches wide, so to make six 12" x 18" mats, you will need two yards of opaque (with pattern on one side) and two yards of clear transparent. It sells for about 50 cents a yard, so the paper will cost you approximately \$2.00.

Cut one 12-inch strip of the opaque paper and pull off the backing sheet. Fasten it with thumb tacks to a drawing board or bread board, sticky side up. Lay your pressed material out on a table so you can make a careful selection. Do not place anything on the contact paper until you are sure how you want to arrange it. Once something makes contact, it's impossible to pick it up and change it!

Some people like to sprinkle a little sparkle or crushed dried leaves on some of the empty spaces, and this is a matter of taste. Also, you can use both small and large material, but arrange it on the ends, or at least around the outside of the mat, for your plate will cover the middle. Of course, a small plate used to serve juice or fruit cocktail will expose most of your design.

When you have finished your arrangement and placed the butterfly, you are ready to put on the transparent top. It takes two people to do this. Take out the thumb tacks and then cut your transparent cover 12 inches wide, pulling off the backing sheet. Have each



person take hold of two corners on the narrow ends of the mat. Put one end down first, being very careful to place it just right—again, it is practically impossible to move, once it touches.

Smooth the paper up the middle and then out to the sides, and be sure you don't leave any air bubbles. Rub it gently to make sure it is in contact. There may be a little space around each leaf that hasn't made contact, but this won't matter. When you have finished, trim any overlapping edges.

Some of the materials that press nicely are blue bells, ferns, pansies, violas, small wild asters, Queen

Anne's lace, honeysuckle, myrtle, oak and maple leaves, as well as countless others. You may want to press just the petals of some flowers that have fat centers. You can sprinkle them around freely or arrange them like a flower.

It is also possible to supplement small flowers cut from felt. I saw some mats that had blue felt fishes and with ferns used to suggest seaweed. This same method can be used for bookmarks too, using tiny florets and little branches of fern leaves.

Order butterflies from: Greenland Studios, Greenland Bldg., Miami, Florida 33147.

EARLY SUMMER means an abundance of raspberries, cherries, currants, and blueberries, with cantaloupe and watermelon also available. Enjoy these delicious fruits now and preserve some for later use, after the season ends.

FROZEN RASPBERRY PIE FILLING

4 quarts fresh red or black raspberries
4 cups sugar
2/3 cup quick-cooking tapioca
1 teaspoon salt

Combine all ingredients and mix well but carefully, to prevent crushing fruit. This makes enough filling for four 9-inch pies.

To freeze the filling in pie shapes: Line four 8-inch pie pans with heavy duty aluminum foil, freezer paper, or several thicknesses of transparent saran, letting lining extend 5 inches beyond rim of pans.

Evenly divide filling between pans and loosely cover each filling with extended lining. Freeze until firm; then seal lining tightly over filling. Remove wrapped filling from pans and return to freezer (may be kept up to six months).

To bake pies: For each frozen filling, prepare pastry for a two-crust 9-inch pie, using your favorite recipe. Remove wrapping from filling and set the frozen block of fruit into the pastry-lined pan. Dot with about 2 tablespoons butter and continue as you would for any two-crust berry pie. Bake in a hot oven (425), 65 to 70 minutes, or until crust is brown and filling boils.

CHERRY-RASPBERRY JAM

1 1/2 pints red raspberries, approx.
1 pint sour cherries, approx.
5 1/4 cups sugar
3/4 cup water
1 box powdered pectin



'ROUND the KITCHEN

with ALBERTA SHACKELTON



This berry pie is so delicious that putting any in the freezer may be difficult, but next winter you'll find it was well worth the effort.

Thoroughly crush the raspberries, one layer at a time. If desired, sieve half of the pulp to remove seeds. Measure 1 1/2 cups and set aside.

Pit and grind or finely chop the cherries. Measure 1 1/2 cups and combine with raspberries in a large bowl or pan.

Thoroughly mix sugar with fruit and set aside. Mix water with powdered pectin in a small saucepan, bring to a boil and boil 1 minute, stirring constantly. Stir into fruit

mixture and continue stirring for 2 minutes. (A few sugar crystals will remain.)

Ladle quickly into jars and cover at once with tight lids. Let stand at room temperature until set (may take up to 24 hours); then store in freezer. Makes 7 medium jars. Jam will keep 2 or 3 weeks in refrigerator.

BLUEBERRY SAUCE

2 cups fresh blueberries
1/2 cup sugar
1/4 cup firmly packed brown sugar

2 tablespoons quick-cooking tapioca
Dash salt
Dash cinnamon
1 1/2 cups water
1 tablespoon lemon juice

Combine all ingredients except lemon juice and let stand 5 minutes. Cook and stir over medium heat until mixture comes to a boil. Stir in lemon juice. Remove from heat and cool 20 minutes; stir. Serve warm on ice cream, pudding, cake or pancakes. Makes 2 1/2 to 3 cups sauce.

Note: When fresh blueberries are not available, substitute unsweetened frozen berries.

BLUEBERRY MUFFINS

1/4 cup shortening
1/4 cup sugar
1 egg
3/4 cup milk
2 cups flour
3 teaspoons baking powder
1/2 teaspoon salt
1 cup blueberries tossed lightly with 2 tablespoons sugar

Cream butter and sugar and beat in egg. Sift together the dry ingredients and add alternately with the milk. Fold sugared berries carefully into batter so they stay whole.

Drop batter from spoon into greased muffin cups, filling about 2/3 full. Sprinkle a little sugar over tops of muffins and bake in a hot (400) oven about 20 minutes. Makes 1 dozen medium-sized muffins.

SWEET AND SOUR CHERRY PIE

(lattice crust)

2 cups sour cherries
2 cups sweet cherries
1 to 1 1/4 cups sugar
2 to 3 tablespoons flour
Pastry for 2-crust pie

Combine cherries, sugar, and

(Continued on page 27)

American Agriculturist, July, 1966



Photo: American Assn. of Nurserymen

Flowering trees and shrubs give beautiful color for your home grounds and supply branches for indoor floral arrangements as well.

CUT FLOWERS FROM YOUR YARD

by Nenetzin R. White

EVEN A SMALL garden can supply a wealth of cut flowers. Where space is very limited, bulbs in the spring, followed by annuals in the summer will give you a nice supply for most of the growing season. If you can grow roses, hybrid teas or floribundas will indeed be a joy. Remember, too, that roses can be grown in containers, and they blossom through the whole summer.

With slightly larger grounds, a couple of flowering trees and a few shrubs will supply colorful enjoyment in the yard, cut flowers for your house, and even a few branches to force in the winter. Forsythia, for instance, can be forced as early as January or February — spring-flowering trees and shrubs through late February and into March.

With medium-sized grounds, it would be nice to have spring-flowering bulbs which will blossom ahead of perennials and before annuals can be planted. In fact, it is perfectly all right to plant annuals where the bulbs were, as the foliage dies back.

A few perennials in your borders will give carefree enjoyment for many years, as well as provide beautiful flowers for your home. And did you ever use delphiniums in flower arrangements? One time I did arrangements in our local hospital for my garden club. I used fragrant double mock orange and blue delphiniums; they were majestic and scented the whole large reception room.

Perennials will give you blossoms in many colors and shapes from about the time of spring-flowering bulbs until there are heavy frosts. Annuals will enhance your borders through the summer and also supply lots of cut flowers. They are your best source of summer color.

For the large home grounds, the possibilities are endless. You will be able to work into your landscape plan all sorts of wonderful trees, shrubs, perennials, bulbs, and annuals to provide a wealth of cut flowers from early spring to late fall. You will also have colorful displays on your grounds over the same long season.

Round the kitchen

(Continued from page 26)

flour and place in pastry-lined 9-inch pie tin. Moisten edge of pastry with water and arrange lattice pastry top by weaving over the top 14 1/2-inch strips cut with pastry cutter, 7 each way. Press down along edge of pan, trim, push up crust, and flute. Bake in hot oven (425), 40 to 45 minutes.

MOLDED SUMMER FRUIT

- 2 envelopes unflavored gelatine
- 2 3/4 cups cold water
- 2/3 cup sugar
- 1/8 teaspoon salt
- 1/2 cup lemon or lime juice
- 4 cups mixed fresh fruit (peach slices, halved white grapes, watermelon and cantaloupe balls)

Sprinkle gelatine on 1 cup of the cold water. Place over low heat and stir until gelatin is thoroughly dissolved. Stir in sugar and salt;

add remaining water and citrus juice.

Arrange a small amount of the fruit in the bottom of a mold to form a design. Spoon on just enough of the gelatin mixture to cover bottom of mold, but not enough to float the fruit. Chill until almost firm.

Meanwhile, chill remaining gelatin mixture until the consistency of beaten egg whites and fold in remaining fruit. Spoon on top of the almost-firm layer; chill until firm (at least 4 hours). Unmold on platter and garnish as desired.

Other fruit combinations you might use: orange and grapefruit sections with blueberries and strawberries or raspberries, peaches and bananas. You may also substitute orange juice or canned pineapple juice for the lime or lemon juice and water.

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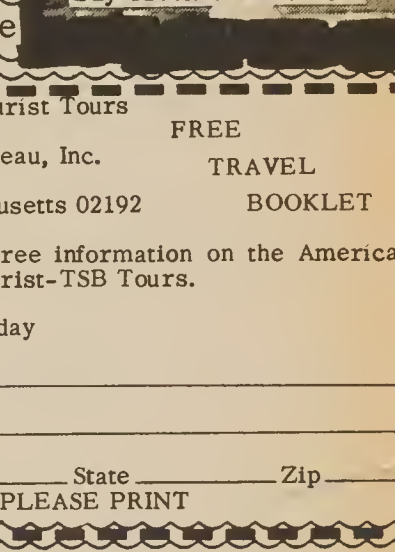
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LOOK AT THIS PICTURE



from Ed Eastman's book
JOURNEY TO DAY BEFORE YESTERDAY
and remember the delicious smells of the old-time grocery store.

Better still, join the large number of enthusiastic readers who have taken the trip with Ed as a guide. Here's what some of them say:

We are enjoying your new book and are reading it out loud as we sit before the fireplace. Your writings stir up no end of fine old memories.—Elmira, N.Y.

Your book—Journey to Day Before Yesterday—had particular interest for me because we have two boys in their late teens and, pervading each of your chapters was evidenced your personal tolerance with the newer generation. On this score, I shall "take a page" from your book and benefit from it.—Sag Harbor, N.Y.

There are chapters in your book that to my mind rival Huckleberry Finn. The book stays bright for me from start to end, and sparkles in many spots with chuckles and laughs.—Indian Rocks, Fla.

Yours is one of the loveliest books we own—different in size and shape—and so beautifully illustrated.—Akron, N.Y.

Send check or money order for \$5.95 (New York State residents add 12 cents tax) to American Agriculturist, Department Book, Savings Bank Building, Ithaca, N.Y. 14850.

The **AA** Clothes Line

2822. Cobbler with embroidered pansy is pretty to wear and easy to launder. Sizes 14, 16, 18 inclusive; embroidery graph and tissue.

8153. Graceful simplicity is this frock's charm. Sizes 10 to 20, bust 31 to 40. Size 12, bust 32, 3 1/8 yards 35".



8153
10-20

8183. Culotte-set, 12 1/2 to 26 1/2, 33 to 47 bust. Size 14 1/2, bust 35, blouse, 1 1/2 yards, 45"; culottes, 3 yards.

8168. Pinafore set, sizes 1, 2, 3, 4, 5, 6 12 1/2-26 1/2 years. Size 4, 2 3/4 yards 35".



8113
9-18

8113. Jumper and blouse in junior sizes, 9, 11, 12, 13, 14, 16, 18. Bust 30 1/2 to 38. Size 11, bust 30 1/2, jumper, 4 5/8 yards 54"; blouse, 1 5/8 yards 35".

2949. Easy-to-do cross-stitch border of tulips. Hot-iron transfer for 3 yards 2 1/2" wide border. Color suggestions.

2949



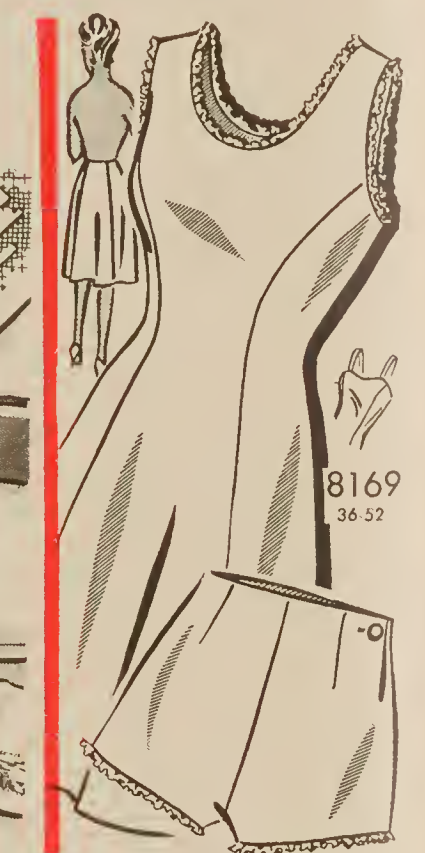
2822
ONE SIZE
(14-16-18)

8235. An afternoon dress with a pretty tie collar designed for the halfsize figure. Sizes 12 1/2 to 26 1/2, bust 33 to 47. Size 14 1/2, bust 35, 5 5/8 yards 35".



8235
12 1/2-26 1/2

8169. This versatile pattern for full or half-slip serves you well and often. Sizes 36 to 52, bust 38 to 54. Size 38, bust 40, slip, 4 3/4 yards 39"; panties, 1 3/8 yards.



8169
36-52

DRESS PATTERNS are 35c each. **NEEDLEWORK PATTERNS** are 25c each. Add 10c per pattern for 1st-class mailing. Send orders, with coin, to: **AMERICAN AGRICULTURIST**, Pattern Dept., Box 220, Radio City Station, New York, N.Y. 10019. Write name, address, zip code, pattern number and size clearly.

Send 50c more for the latest issue of our pattern magazine **Basic FASHION**. Every pattern features our exclusive **Photo-Guide**. Also, our **Needlework ALBUM** is filled with a wealth of handwork designs. Send 50c for your copy.

AROUND



the HOUSE

Leftover Gravy

When the meat runs out before the gravy, resist the temptation to throw away the extra gravy, says the American Meat Institute. Leftover gravy adds flavor to spaghetti sauce and is fine for moistening a hamburger loaf.



New Thermo-Caddy by Club Aluminum products Co. seals in heat or cold. Developed for company's new Coronet cookware, the caddy holds 2 or 3-quart saucepan with cover or 9" fry pan. Keeps food warm for 12 hours. Sells for \$1.50.

Milk and Strontium-90

People who don't drink milk have three times more radioactive material in their bones than those who do, research studies conducted at several Agricultural Experiment Stations show. Milk is the body's chief source of calcium. When milk is not included in the diet, more strontium-90 is deposited as a substitute for calcium in the bones.



New from Ekco Housewares Company, kitchen tools with solid nylon bowls and blades to use with Teflon coated cookware.

Also, spaghetti serving tongs with raker-edge jaws to hold food securely without crushing. Can be used for serving asparagus, baked potatoes, corn on the cob and other foods as well.



Corning Glass Works has introduced a Pyrex mixing bowl in a new shape. The 1½-quart bowl's straight sides will eliminate spatter and allow thorough blending by beaters. Bowl was designed specifically for use with portable mixers.

Send For These

"A Primer of Home Laundry Planning." 16-page booklet containing many illustrations and a wealth of tips on suitable locations for a laundry and how to use the space you have. Available free by writing: Home Laundry Center, Maytag Company, Newton, Iowa 50208.

"Do You Know Your Valuable Papers?" Cornell Extension Bulletin 963. Helps you to inventory and locate your family's important papers; also aids others in an emergency. Single copies free to New York State residents (10 cents per copy to others) by writing: Mailing Room, Stone Hall, Cornell University, Ithaca, New York 14850.

American Agriculturist, July, 1966



One Answer To Housing Need

It is estimated that Americans will need 2 million new homes in the next 10 years. Mass production of quality homes may be one answer.

Built in two sections in a factory, the above home was shipped to a previously prepared site and joined together. Brick front and fireplace were added, and the house was ready for occupancy 30 days after ordering—at a saving of from \$2,000 to \$4,000 under traditionally built homes using the same materials.



Pictured above is the 5-lb. New York State Cheddar Cheese which Cuba Cheese & Trading Co., Inc. is giving each of the top ten state winners in the American Agriculturist-New York State Grange Applesauce Cake Contest. These winners will be selected this fall when State Grange meets at Hamburg, New York.

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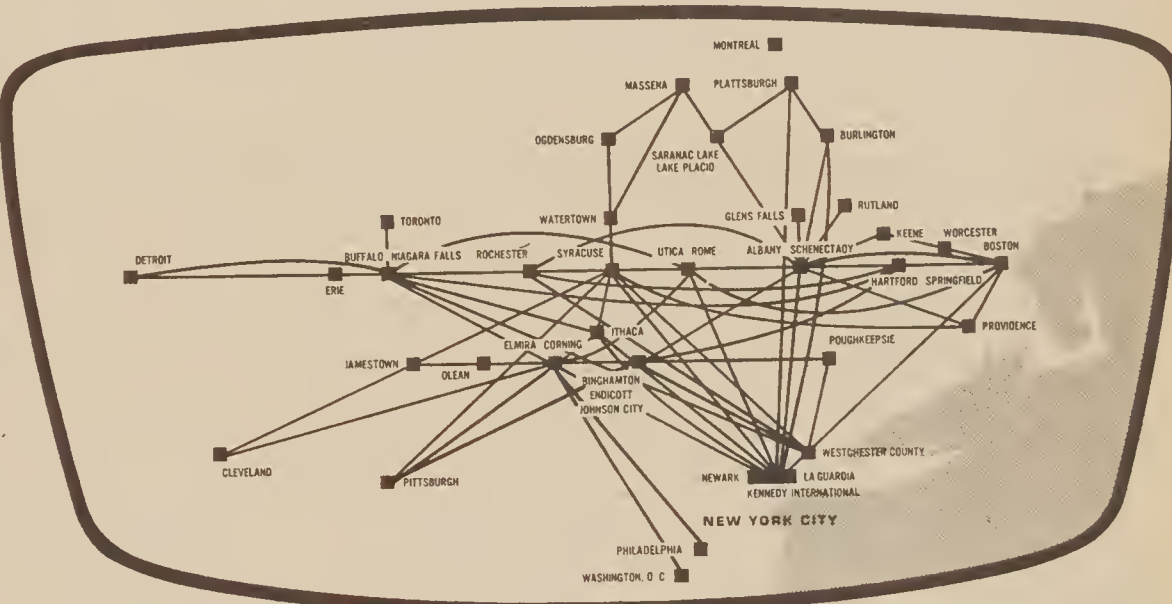
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ED EASTMAN'S PAGE



Many older readers have pleasant memories of the "Youth's Companion" which so many of you read when you were young, so you will remember J. T. Trowbridge, the author of the following poem, which I quote in part. He was a regular contributor to the "Companion" of both stories and poems.

Around this lovely valley rise
The purple hills of Paradise.
O, softly on yon banks of haze
Her rosy face the summer lays!
Through all the long midsummer day
The meadow sides are sweet
with hay.

I seek the coolest sheltered seat,
Just where the field and forest
meet —

Where grow the pine trees tall
and bland,
The ancient oaks austere and
grand.

The cattle graze, while warm

and still
Slopes the broad pasture, basks
the hill,

And bright, where summer
breezes break,
The green wheat crinkles like a
lake.

High up the lone wood-pigeon
sits,
And the woodpecker pecks and
flits.

The swarming insects drone
and hum,
The partridge beats his throbbing
drum.

As silently, as tenderly,
The down of peace descends
on me.

O, this is peace! I have no need
Of friend to talk, of book to
read;

A dear Companion here abides;
Close to my thrilling heart He
hides;

The holy silence is His voice:
I lie and listen, and rejoice.

complicated because much farm machinery can be used only for a few days a year.

Why is it not possible for farmers in a neighborhood to own some equipment jointly? Or why couldn't a farmer or group of farmers plan to use custom work? By changing the operators, a tractor can be kept running all night. There would, of course, be some conflict of interest as to whose turn comes first, but careful planning and toleration would solve this problem.

Has any reader had any experience in sharing the costs of machinery? I would be glad to have some short letters from actual experience.

"NOTHING BUT A HOUSEWIFE"

I asked a college student the other day what profession she was going to follow. She answered that she didn't know. Then I said: "What about the profession of homemaking?" With a shrug of her shoulders, she answered emphatically: "Keeping house is no profession!"

Many times across the years I have heard women say apologetically: "I'm nothing but a housewife."

Now, probably I would feel the same way if for a good part of a lifetime I had cooked meals, washed dishes, made beds, scrubbed floors, and diapered the babies. But it does seem tragic that so many women have so little appreciation of the role that homemaking plays in the lives of all of us.

The influence of a good mother can go down through many generations. Any lasting civilization must be built upon the home, of which the mother is the center and the mainspring.

Destroy everything else, but if the home remains intact civilization can be rebuilt. Destroy the home, and you destroy everything!

Just a housewife? It can be the most important and the greatest profession on earth!

ATTENTION, COLLEGE STUDENTS!

In recent issues I suggested that Ithaca College would send free of charge to students planning to go to college this fall, a set of work sheets that I use in student counseling. These work sheets or instruction papers could be of great help to students making the difficult adjustment from home and high school to dormitory and classrooms.

The sheets include how to adjust yourself to college, how to organize a daily time schedule, how to study effectively, how to create interest in a subject, how to concentrate, how to take notes, how to review, and how to build and keep goals and ideals.

These guides may be obtained free of charge without obligation by writing to the

Dean of Students
Ithaca College
Ithaca, New York, 14850

HOW TO ESCAPE



FOR A WHILE

Ed Eastman has never written a book that continues to sell even right through the hot weather so well as does "Journey to Day Before Yesterday." His other books have been very popular, but none of them has brought so many letters right out of the hearts of its readers.

Older people like to "remember when." Young people like to know what life was like when Grandpa and Grandma were young. That is especially so now when people are so insecure and so worried about what is going on in this country and in the world. They like to escape from it for a while back to the days when life was not so complicated, and when they were happier... or think they were.

The publisher has done a fine job in printing "Journey to Day Before Yesterday." In keeping with the spirit of the book, it's in album form, beautifully-printed, and with scores of pictures that will carry you back to the horse and buggy days.

For a present to your friend, or for reading to keep you up late, you can't beat "Journey to Day Before Yesterday." M.E.R.

This book will be mailed to you postpaid on receipt of your check or money order for \$5.95. (New York residents add 12 cents for state tax). Write to American Agriculturist, Book Department, Box 370, Ithaca, New York, 14850.

EASTMAN'S CHESTNUT

Every maiden lady will certainly appreciate the point in the following story sent to me by Samuel J. Shires, Geneva, New York:

Some years ago a minister was traveling to Chicago on a train, and as they were nearing Chicago a woman began to cry. The minister went to her and told her that he was a minister of the gospel, and that if he could say anything that would comfort her, he would like to do it.

She shook her head and between her sobs told him that she was going to Chicago to cremate her second husband.

She left the train at East Chicago, and as the train got under way another woman began to cry. So he went to her, stating again that he was a minister and would like to comfort her.

She daubed at her face to wipe away the angry tears and said: "That woman who just got off has burned up two husbands already, and I've never been able to get even one!"

American Agriculturist, July, 1966

HAVE FUN

Why not have some fun by reviving the old-fashioned game of horseshoe pitching?

Cooperating with the county Farm Bureaus years ago American Agriculturist got the game going in many counties, and brought the local winners to the State Fair in a contest to determine the State championship.

It was almost unbelievable to see the number of ringers that the good players made. In the contest in 1925, the winner threw an average of over one ringer in five. The average of all the players in the state contest that year was 10 percent ringers.

The professionals have strict rules and conditions for playing the game, but all you really need are two pairs of horse shoes... each weighing about 2½ pounds. These usually can be bought at surplus and farm supply stores... or maybe there are some old shoes around your place.

The stakes on each side should extend about 12 inches above the ground, and should slope a little

toward each other. Professionals use metal stakes an inch in diameter, but wooden ones can be substituted. They should be 40 feet apart for men and 30 feet for women.

To count at all a shoe must be within 6 inches of the stake. The closest shoe counts one point, a ringer three points, a double ringer six points, a ringer and a close shoe four points; a shoe leaning against the stake counts as a close shoe only one point. A game is fifty points, but a shorter one may be agreed on.

Now fix up a level place to play, organize a neighborhood contest and go to it! I'll be glad to answer any questions.

WHAT ABOUT CUSTOM WORK?

In a recent editorial Editor Conklin points out that the average farm investment in real estate, stock and equipment is \$27,000 per farm worker. A substantial amount of this is needed for equipment. The farmer's problem is



SERVICE BUREAU

MAIL FRAUD

Our most recent \$25.00 Protective Service award was sent to Mrs. C. F. Smith of West Brookfield, Massachusetts.

In December, 1962, Mrs. Smith mailed an order and a check to Decorative Trends, Dallas, Texas, and she never received the merchandise. She finally contacted the Dallas Better Business Bureau and also corresponded with the Dallas Postal Inspector.

She received notice from Postal Inspector R. H. Dawson on April 25, 1966, that James K. Barker of Decorative Trends was indicted for mail fraud on January 18, 1966 at Dallas. He entered a plea of guilty and was sentenced on April 15 to serve 13 months in custody of the Attorney General.

Mr. Dawson advised Mrs. Smith that her cooperation was appreciated and that her assistance in the investigation helped bring the case to a successful conclusion.

Since a number of complaints are necessary in order to prove mail fraud, we assume that Mrs. Smith was only one of many who contacted the Postal Inspector. She was the first to write us about it, however, and she met all conditions necessary to qualify for a reward.

CAN YOU HELP?

Mrs. Helen W. Knott, R. 1, Mayville, New York, would like to locate the song book, "Treasury of Songs," which includes The Basketmaker's Child, Larboard Watch, The Danube River, and many others.

"The tree bore its blossoms
And all the birds sung.
'Shall I take them away?'
Said the wind as it swung.
'No, leave them alone till the
berries are grown,'
Prayed the tree as he trembled
from rootlet to crown.

If you know the rest of this poem and its author, please write Miss Ethel Hall, 190 Blakeslee Street, Bristol, Conn.

Mrs. Richard Cook of East Springfield, N.Y., is looking for words to the following old ballads: "The Sinking of the Vestris," "The Convict and the Rose," "Baby on the Doorstep," "Crepe on the Little Cabin Door," "The West Plains Explosion," "The Death of Floyd Bennett," "The Death of Floyd Collins," "May I Sleep in Your Barn Tonight, Mister."

Mrs. Vernon Chambers, R.D. 1, Copenhagen, N.Y., would like flower prints to stamp on Latch Hook Rug Bases. This base is Symera canvas and very hard to stamp.

Mrs. Charlotte Smart, Pownal, Maine, would like the following poems: "Asleep at the Switch," "Forever Nineteen," "Pictures in the Fire," "Bible on the Table, Picture on the Wall."

Mrs. Roy R. Gardner, 63 South St., Addison, N.Y., would like to locate "Jerusalem the Golden," by Robert P. St. John, and "Old Tioga Point and Early Athens," by Louise Welles Murray.

Mrs. Rachel N. Northup, 201 Academy St., Jersey City, N.J., would like the poem, "Poppy."

Mrs. L. J. Fitzpatrick, Rt. 1, Laconia, N.H., would like the book, "Growing Up In the Horse and Buggy Days," by Eastman and Ladd.

ADDRESSES WANTED

Walter R. Williams, whose last known address was Mohawk, New York.

John Kutz, formerly of Hughesville, Pennsylvania.

Will the party who sought information concerning Herbert A. Smith, formerly Justice of Peace at Liverpool, N. Y. in 1956, please contact Carter W. Smith, 35 Mildred Ave., Cortland, N. Y.?

Any of the family of Mrs. Edith Melville Hine, formerly of Dorchester, Massachusetts.

Rog Edward, or Everett, and Howard Russell Wilmot, last heard of in Boston, Massachusetts.

Clara Revard, whose last known address was Leominster, Massachusetts.

Willard Malcom Avery, a World War II veteran, formerly of Phelps, New York.

Relatives of Alice Woodbury and George Goss, possibly living in New Hampshire.

Albert Edward Shaw, born in Boston, England, and formerly from Saint John, N.B.

Margaret Brown Collins, daughter of Cela and Charlott Brown, formerly of Hornell, New York.

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SOMEONE IS HURT AND
DISABLED 1 DAY OR MORE

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SOMEONE IS DISABLED IN
A MOTOR ACCIDENT

EVERY 7 SECONDS
SOMEONE IS DISABLED IN
THE HOME

EVERY 1.2 SECONDS
SOMEONE BECOMES A
HOSPITAL PATIENT



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Let North American help you too in time of need.

Peter Unfus, Friendship, N.Y. \$ 114.28
Unplugging chopper—broke thumb
John Aukema, Jr., Port Crane, N.Y. 103.00
Hit in mouth with basketball
Horace R. Fowler, East Randolph, N.Y. 399.57
Auto accident—cut face, inj. shoulder
Marlene G. Lawler, Ellicottville, N.Y. 274.96
Kicked by cow—broke wrist
George Edmunds, Cayuga, N.Y. 1916.42
Hit by truck—severe cuts and bruises
Helen Paine, Cherry Creek, N.Y. 1351.42
Slipped—broke hip
Lyle Gabriel, Clymer, N.Y. 579.00
Fell from truck—broken bones in hand
Geraldine M. Kleiner, Pine City, N.Y. 1820.00
Auto accident—injured back, arm
Cecil A. Barrows, Oxford, N.Y. 225.00
Ladder broke—broken arm
Robert R. Lewis, West Chazy, N.Y. 601.92
Auto acc.—inj. knee, shoulder, back
Robert E. Wilkins, Homer, N.Y. 484.66
Slipped unloading milk cans—inj. back
Helen Lockwood, Oneonta, N.Y. 1213.69
Auto accident—injured back
Wesley Farnar, Collins, N.Y. 495.60
Kicked by cow—internal injuries
Paul Demers, Malone, N.Y. 1147.14
Caught in silo unloader—broke leg

James Gasner, Amsterdam, N.Y. \$ 630.38
Slipped off plank—internal injuries
George Morrison, LeRoy, N.Y. 1225.40
Slipped on truck—injured eye
Sheldon Hansel, West Winfield, N.Y. 822.99
Car skidded—head injuries
Lowell Genzel, Carthage, N.Y. 691.61
Auto accident—multiple cuts and bruises
Carl Gouterhout, Copenhagen, N.Y. 2190.00
Auto acc.—broke arm, elbow, nose
Daniel Banker, Mt. Morris, N.Y. 289.27
Farm truck hit by car—broke ribs
Richard L. Davis, Morrisville, N.Y. 237.86
Pushed by cow—injured back
Bertha Kluth, Hilton, N.Y. 377.14
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Carrying feed slipped—injured knee
Richard Wyffels, Canandaigua, N.Y. 980.00
Kicked while milking cow—injured back
Enno VanDam, Jr., Goshen, N.Y. 1750.00
Thrown from moving tractor—broke leg
Adelia Bowen, Holley, N.Y. 920.97
Slipped on porch—injured back
David Strickland, Kent, N.Y. 413.50
Thrown from wagon—internal injuries
Shelia Curcio, Richfield Springs, N.Y. 769.96
Auto accident—multiple cuts & bruises

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Arnold Bass, Hammond, N.Y. \$ 585.55
Struck roof of truck—injured back
Elva J. Moulton, Madrid, N.Y. 837.70
Fell—injured knee
Harry Rubins, Cobleskill, N.Y. 400.00
Slipped and fell—inj. back
Walter Maki, Interlaken, N.Y. 1120.00
Fell off roof—injured head
Lawrence E. Stewart, Hornell, N.Y. 235.14
Cutting fence post—cut finger
Stephanie Petzold, Newark Valley, N.Y. 1475.17
Auto accident—inj. back
Raymond M. Stevens, Brooktondale, N.Y. 651.15
Hit by panel—injured knee
Amos MacCreery, Kingston, N.Y. 1321.42
Motorcycle acc.—broke shoulder
Erwin Duster, Walworth, N.Y. 477.22
Kicked by cow—inj. knee
Donald Huntley, Walworth, N.Y. 670.83
Cut finger clipping cows—acute infection
Marion Brown, Bliss, N.Y. 395.00
Kicked by cow—inj. knee

William Gibson, Dundee, N.Y. \$ 518.20
Fell—broke both arms
Ross Cummings, Knoxville, Pa. 325.00
Kicked by cow—broke leg
Olive Phillips, Wattsburg, Pa. 168.00
Slipped on rug—broke arm
Flora Webster, Genesee, Pa. 295.00
Slipped and fell—broke hip
Kenneth Russell, Carbondale, Pa. 102.86
Shoved against wall by cow—cut finger
C. Brew Holman, Dutch Neck, N.J. 1650.00
Truck accident—broke ribs, multiple ini.
Peter Nooitgedagt, Belvidere, N.J. 661.06
Crushed by cow—injured knee
Robert Hays, Phillipsburg, N.J. 753.03
Cut by mower—injured hand
James W. Avery, South Royalton, Vt. 1245.00
Pulling on rope—broke leg
Harry Anderson, Jr., Williamston, Mass. 558.81
Fell off truck—broke back
Robert McGinnes, Cornish Flat, N.H. 968.45
Slipped—injured back

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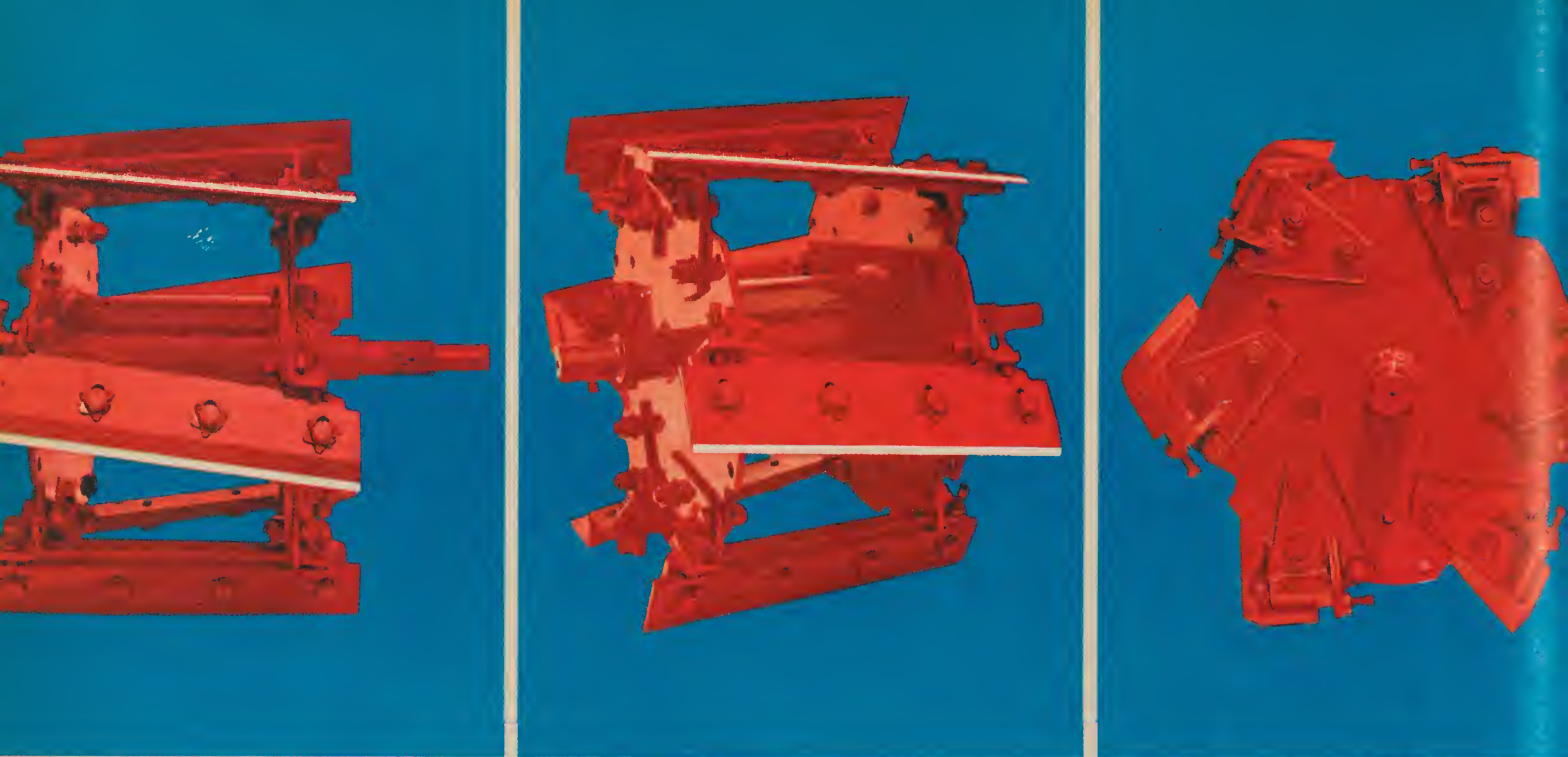
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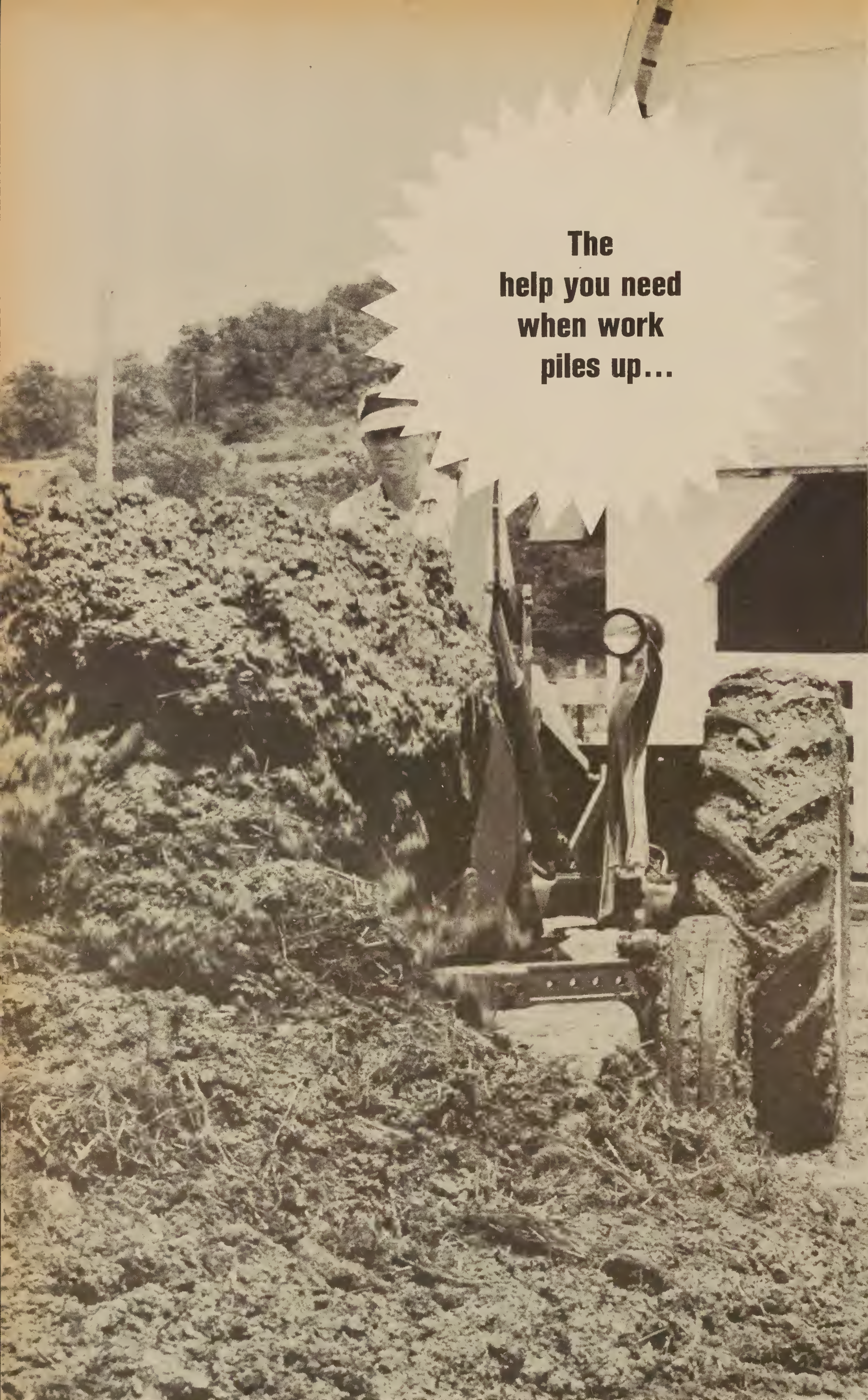


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RURAL NEW YORKER

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EDITORIALS

by GORDON CONKLIN



CHICKEN FEED

There is nothing in the "chicken feed" category about the stakes involved in the continuing wrangle over freight rates on feedstuffs being shipped into the Northeast. The region imports between five and six million tons of grain annually.

Briefly, the problem is that certain southern and southeastern states got a substantial reduction in feedstuff freight rates a few years ago and presently enjoy a rate advantage reflected in feed costs generally lower than those in the Northeast. Delmarva has also obtained rate reductions that provide a sizable competitive advantage... especially over northeastern poultrymen... that has been called "economic murder."

Feed is the largest single cost item in the poultry business, and feed that is a few dollars cheaper per ton can mean a lot of dollars annually in modern big-scale egg or broiler production. Since milk is more bulky and perishable than eggs, and because it is heavily regulated by state and federal market orders, any competitive advantage in dairy feed prices enjoyed by dairymen to the south does not jeopardize northeastern dairymen.

Northeastern poultrymen and their organizations started yelling about the competitive disadvantage years ago, and one proposal after another has been made by... and to... the railroads to correct the situation. One after another, the proposals have been abandoned by the roads before they became effective... or deferred by the Interstate Commerce Commission because of protests. Notable exception involves corn, on which freight rates to the Northeast have been reduced somewhat. It's been a maddening process to watch hopes about reductions of rates on other feed ingredients rise and then be dashed over and over again.

The railroad people have their problems... and have commented that, unless the various carriers can agree on rates, prolonged litigation might delay for a long time the use of any new rates.

Frankly, farmers aren't exactly the picture of unanimity on the subject either... for the simple reason that changes in rates usually affect farmers in one state, or in one distribution area, differently than those in another. For instance, poultrymen in Maine are presently paying less than would be justified in terms of mileage... as compared with rates being paid by their counterparts in Western New York.

As an example of the distorted nature of the present rate structure, Rochester, New York, feed manufacturers pay corn freight rates plus 82 percent to lay down feedstuffs there... while at Boston (many miles farther from midwest grain terminals), the rate is only 32 percent above corn rates. Bluntly, the present rates are not realistic in terms of compensating for the mileage between various northeastern receiving points and the major points of origin farther west.

It takes some doing to make fundamental changes in anything that has been in existence for 40 years... including freight rate charging patterns. The railroads are struggling with the demise of an obsolete rate structure and the birth of a new one which would drastically change the competitive relationships of sub-regions of the Northeast.

But northeastern poultrymen... and the

agribusinessmen that supply them... must work hard at this one in order to compete more effectively with their counterparts in Dixieland. Railroad officials involved must be presented with convincing evidence that it is to their advantage to keep competitive the biological manufacturing units operated by poultrymen of the region. Only if they are competitive can northeastern poultrymen buy the enormous tonnages of feed, the transportation of which helps keep railroads operating at a profit.

POOR MANAGER

Have you heard about the big farmer who managed to borrow \$253,000 in 1950? He did pretty well that year, taking in \$36,000 of income... but he spent \$39,617.

Being a bit short, he trudged down to the bank and hit 'em up for an increase in his borrowing... to \$257,000 this time. Well, he worked hard to use all this capital efficiently, but somehow things didn't seem to work out quite right. In the next 16 years he managed to live within his income during only four.

His income jumped spectacularly... to slightly more than \$90,000 in '65... but he just couldn't resist spending more than he earned. His debt last year was up to \$317,000 and his interest bill alone was \$11,354! It's already certain that he'll be beating a path to the "borrowing bin" again in '66.

This unfortunate fellow's name is Sam, usually called Uncle Sam. Just add six zeros... 000,000... to each of the numbers previously presented and you'll have an idea of our country's fiscal situation!

MOVING MILK

Once upon a time, in the far-off land of Lactavia, dairymen were wondering how to sell more milk. "Let's take a look at how some other beverages are promoted," said some, "and see if we can learn from them." So they went to one of the soothsayers supposedly hep on such matters.

"First," he said, "we'll consider Joyjuice... promoted by the Man of Distortion. No case can be made for its nutritional benefits; its costs are fantastic compared with our product, and it often causes people to behave very peculiarly. However, it has been cleverly promoted as being consumed by all the people who really count... a matter of status. Also, it drugs the inhibitions and makes people feel free for a time. Free and superior... you can't beat that combination when it comes to appealing to people!

"Now if you consider Hoke, Burpsi-Cola, and all the other soft drinks, you'll note they push hard on the theme that the young, active, hard livin' and hard lovin' people always have a bottle of this product at least every hour. Besides, they put some sugar and caffeine in their beverage... one makes you thirstier, and the other gives you a lift.

"As for Java, Sleep-No-More, and the other brands of coffee, the pitch is merely that it tastes good. This product sells itself because it is habit-forming... with even a larger jolt of caffeine than Burpsi-Cola and the rest.

"Now, you'll note that none of these products can make any case for itself on the basis of human nutrition. In fact, masses of evidence

exist concerning the detrimental effect these beverages can exert in some cases.

"Therefore, gentlemen, you may seriously question whether a sales pitch for milk should emphasize what a wonderful food it is. Nutritious food... who needs it? But convince people that buying a particular product will somehow bring them superior status, passionate romance, youthfulness, glamor, greater virility, or a reduced waistline... and they'll buy it by the trainload!

"And you might also consider some product development and legal changes whereby you can put some zing into milk. After all, why should all fluid milk be fit for babies... why can't some milk products be designed for adults only like most modern movies, and labeled as such?

"Why not accept milk as a convenient raw material and then proceed to give the customer what he wants by spicing up its taste, adding caffeine (or some other hook), and maybe even checking out its fermentation possibilities? And then promote it with programs that associate milk with what people REALLY want... not what you think they ought to want, or what they say they want."

BEEN TO THE MORGUE LATELY?

H. T. Rowe of IBM recently wrote me an interesting observation:

"When the social scientists of a later civilization look back upon ours, they may be forgiven for mistakenly equating us with the ancient Huns in regard for human life. For when they decipher our records they will find that in the pursuit of no idealistic cause such as a war against insufferable tyranny... but merely in the effort to get from one place to another for pleasure or commerce... we sacrificed 50,000 human lives a year and permanently maimed hundreds of thousands of others.

"At the same time they will be deeply puzzled by the strange inconsistency of our attitudes and efforts, for our annals also will reveal that in a few generations, through the genius of our scientists in the eradication of plagues, we increased the life expectancy of our people by thirty or forty years... only to slaughter upon the streets and highways more children than were the victims of the most virulent diseases."

What can we do about this tragic and senseless slaughter on our nation's highways?

First of all, we can drive defensively... always trying to be in a position to get out of the way! We can express our responsibility to our fellow man by applying the Golden Rule on the roads... instead of ramming two tons of lethal steel down the road at speeds that bolster our own ego at the expense of other people's lives.

In the public sector, we can push for tougher law enforcement... rather than the gentle wrist-slapping administered to reckless drivers by juries and judges who worry about the time they too may be involved in imprudent driving. Parents can get tough with their children and take the trouble to find out how they behave behind the wheel. Maybe we could even find the intestinal fortitude to back to the limit our police officers in their efforts to keep us from lying on a cold slab before our appointed time.

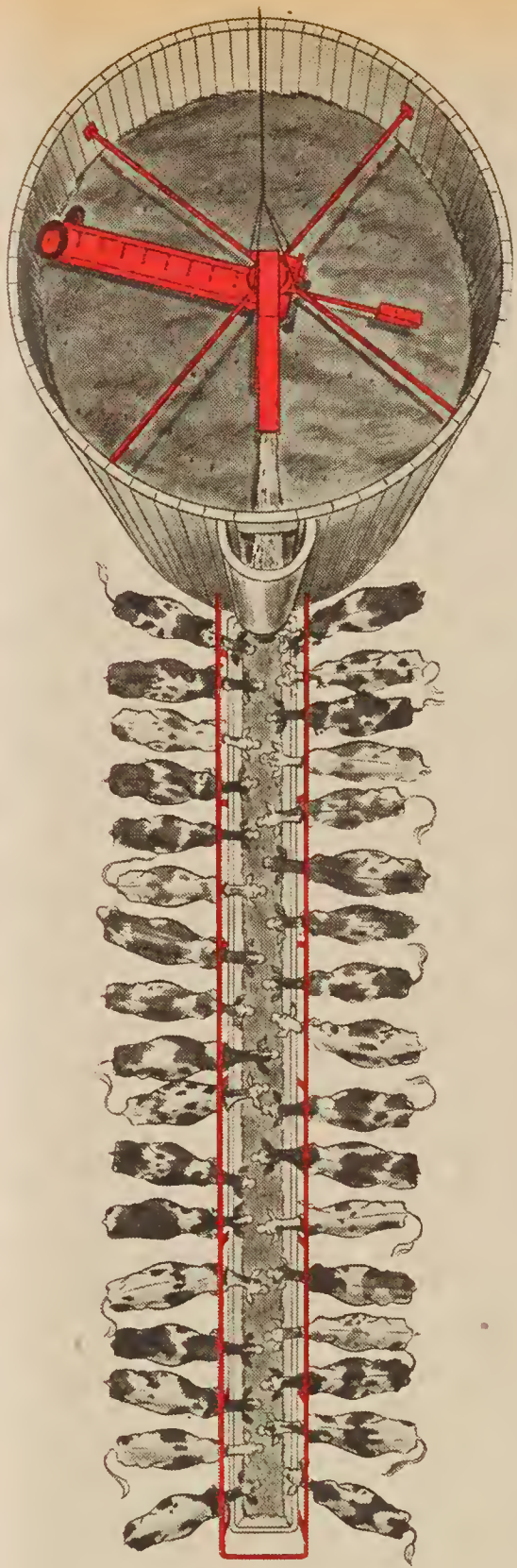
INTERESTING FIGURES

The 1966 World Almanac reports that total annual expenditures in the United States for operation of the public schools is \$21,444,434,000.

Matching this figure is the sum of annual national expenditures for alcoholic beverages (\$13 billion) and tobacco (\$8.5 billion).

Sort of makes you wonder, doesn't it?

American Agriculturist, August, 1966



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No more pitching silage into the bunk.

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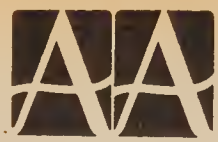
Take the system illustrated, for example. It's a Farmec 590 and 561. The 590 suspended silo unloader will give season after season of reliable performance. It features a unique torque-arm drive and is constructed of special corrosion and abrasive resistant steels. The 561 trough feeder has a smooth back-and-forth action that moves tons of silage, green chop, hay and concentrates the length of its built-in bunk.

But this is just one of six Farmec feeding systems . . . others use the 571 cycle feeder or the 541 economy auger feeder. One is bound to be just right for your farmstead. See your Farmec dealer for all the details.

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FOR THE NORTHEAST FARMER

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PLOWS... Choosing the Right One for You

by Wes Thomas

THE WIDE RANGE of types of plows currently available, coupled with the many items of optional equipment that can be added to them, complicates the task of selecting the best plow for your particular needs.

At one time a plow was an implement that could be hooked behind any tractor. Today, however, for best operation the plow must be matched to the size and type of tractor, as well as to the conditions that will be encountered in its operation.

Plow Types

DRAWN — The conventional type plow, in which the weight of the structure is supported by two wheels near the front and a third wheel at the rear, has some very basic advantages. For example, drawn plows are easy to "team" for multiple hitches behind large tractors. In some extreme conditions such as dense, hard, sun-baked soil, and sticky, tough gumbo, a drawn plow usually does a better job than any other type.

The tongue which connects the plow to the tractor makes it easy to design adjustments which permit hitching exactly on vertical and horizontal lines of draft to line up the center of pull of the tractor with the plow's center of resistance. Thus, the lack of side draft improves tillage, prevents needless wear on tractor and plow, and reduces fuel costs. It also spares the tractor driver from tiresome fighting to hold the plow to its work.

INTEGRAL — This type, originally introduced just prior to World War II on two-plow tractors, has gained rapid acceptance among farmers.

Since the need for wheels on the plow is eliminated, the total cost of the tractor-plow combination is less than for a tractor and drawn

plow. For working small and irregular-shaped fields, and for backing the plow into storage space, the pick-up feature is very convenient. The built-in draft-sensing arrangement in the tractor hitch provides weight transfer from the front to the rear wheels... thus reducing rear wheel slippage.

In the years since its introduction, the basic arrangement of the integral plow has been applied to successively-larger versions. Today, moldboard plows with up to five bottoms are available in the fully-mounted integral version.

But some problems develop as integral plow size increases. For example, the provision for side sway or lateral movement which can be built into the tractor hitch is limited. Thus, large integral plows have only moderately-good contour-plowing ability.

In general, the horsepower capacity of tractors has increased more in proportion than has tractor size and weight. Thus, although it is not difficult to provide enough hydraulic-system capacity to lift the large integral plow, the tractor often does not have enough size or weight for adequate transport stability.

Because an integral plow in the transport position is essentially a rigid extension of the tractor, the greater length of larger plows increases the turning clearances required to prevent striking posts or other obstructions.

SEMI-INTEGRAL — These "hybrids" tend to combine the best features of both the drawn and integral types, while avoiding many of their limitations.

This type plow is based on the fact that as the number of plow bottoms in an integral plow increases, the top link in a three-point hitch becomes less important to hitch action. With four or more plow bottoms, the top link connec-

tion can be omitted completely when the plow is in the working position.

Thus, if the rear wheel of the plow is arranged to lift the rear of the plow for transport, the top link can be dispensed with entirely. This assumes, however, that the draft load in the hitch can be sensed through the lower lengths.

The semi-integral plow is attached to the tractor only through the lower draft links. The front of the plow is free to move vertically independent of the rear of the plow; the plow is also permitted to pivot from side to side in relation to the tractor by a vertical-pivot arrangement. When the tractor turns in relation to the plow, a guidebar arrangement connected to the tail wheel of the plow steers it so that the plow follows the track of the tractor wheels and does not swing wide as does an integral plow.

This arrangement reduces the width required for headlands, and allows the plow to trail well in contour plowing. Relatively-square headlands can also be produced because of the independent lowering and lifting of the front and the rear of the plow.

General Characteristics

Plow capacity in a 10-hour day can be estimated by multiplying the width of cut (in feet) of the plow by the forward speed in miles per hour. Thus, a plow with five

14-inch bottoms would have a working width of almost 6 feet. At 4 miles per hour it would plow 24 acres per day or approximately 2.4 acres per hour. This method allows an average amount of time for stopping and turning.

Because of the relatively high horsepower-to-weight ratio of most present-day tractors, they cannot develop their full power at the older plowing speed of 3 to 4 miles per hour. To avoid using excessive weighting on these tractors, they must usually be operated in the 5 to 6 miles-per-hour range.

Conventional plow bottoms pulled at this higher speed throw the furrow slice excessively and waste tractor power. Several manufacturers now offer bottoms that can be operated at these higher speeds without significant power loss. Since they also work well at lower speeds, these bottoms permit matching tractor power to plowing conditions by changing speeds.

High-speed plowing is not recommended in fields where a large number of stones, stumps, or other obstructions are likely to be encountered. If an object is hit at high speed, damage to the equipment; or injury to the operator, can result.

This problem can be reduced somewhat by the use of safety-trip spring-release standards on each plow bottom. Since each release must withstand the force of only one plow bottom, it can be designed to release and permit the bottom to swing out of the way when any individual plow bottom hits an obstruction. Conversely, the plow with stiff standards depends upon a cushion spring release in the hitch. Thus the obstruction encountered must be great enough to stop the entire plow before the hitch releases.

Many factors affect the performance of a plow and its effect on the tractor. Here are the more important ones:

1. **Mobility and Maneuverability** — Integral plows are the most maneuverable because they

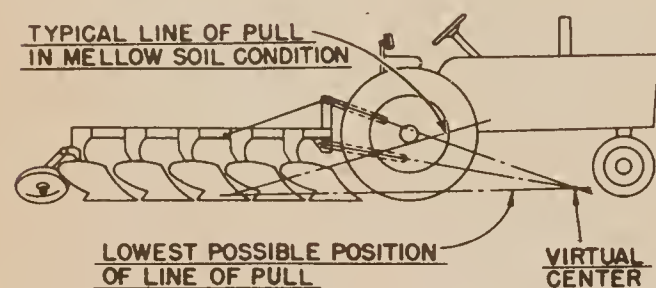
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COMPARISON OF PLOW CHARACTERISTICS*

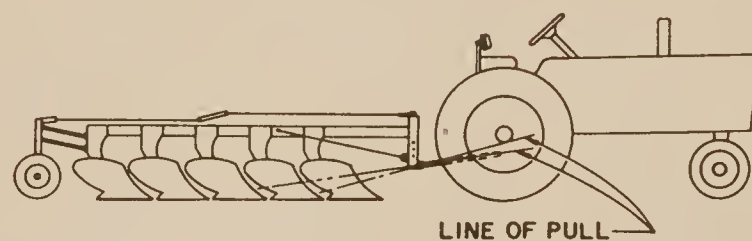
	PLOW TYPE		
	Integral	Semi-Integral	Drawn
Mobility & Maneuverability	1	2	3
Contour Plowing Characteristics	3	2	1
Uniform Plowing Depth	3	2	1
Load Relief for Tractors	1	2	3
Transport Stability of Tractor	3	2	1
Cost	1	2	3
Tractive Performance of Tractor	2	1	3

* In this table, a rating of "1" indicates the best rating in each characteristic, "3" indicates the least desirable rating.

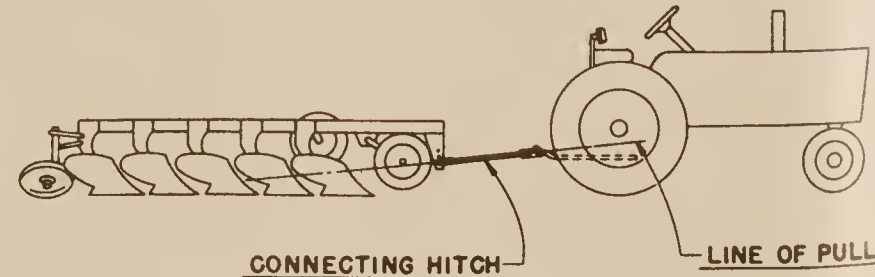
Differences in hitching, plow weight, use of wheels, and plow length produce different lines of pull and weight transfer among integral, semi-integral, and drawn type plows.



In integral plows the line of pull does not necessarily pass through the hitch points of the plow. It is free to move up and down through a wide range of positions, depending upon soil conditions.



In semi-integral plows the line of pull must intersect the hitch point of the plow. Since the angle of pull changes with varying soil condition, the line of pull has different points of origin at the plow.



In the drawn plow the line of pull passes along the connecting hitch. Weight transfer is usually considerably less with a drawn plow than with either an integral or semi-integral plow.

become essentially a part of the tractor itself.

Semi-integral plows may be somewhat less maneuverable in transport, but they are better in following contours. The vertical hitch-point located behind the tractor rear wheels tends to swing the front of the plow out rather than allowing it to track inside when the tractor turns in contour plowing.

Drawn plows have only limited mobility and maneuverability, especially when compared to integral types.

2. Plowing-Depth Control — In both the integral and semi-integral plows some variation in depth is inevitable.

When the integral hitch is operated in the draft-responsive setting, it allows the plow more nearly to follow variations in soil profile and reduce depth variation. However, as integral plows increase in size, they of necessity tend to bridge small depressions and to plow through small mounds.

Since the semi-integral plow is pivoted just behind the tractor, depth variations caused by pitching of the tractor front end are reduced.

Drawn plows do not provide load relief with variations in soil condition. Thus, they can produce the best uniformity of plowing depth.

3. Stability — The amount of weight that a tractor hitch can lift is usually limited by the necessity for keeping the tractor front wheels on the ground for adequate steering control.

To reduce the amount of weight needed on the front of the tractor, some integral plows are designed as light and as short as possible. This arrangement causes other problems, however. For example, rigidity of the plow may be severely reduced, and limited fore-and-aft space between the bottoms reduces trash clearance. In severe trash conditions, plugging then becomes a problem.

Transport stability is an important factor in the growing popularity of semi-integral plows. Since only the front of the plow is supported by the tractor, weight becomes less critical.

Drawn plows have little or no effect on the transport stability of the tractor, so with these plows size can be matched to tractor power with no difficulty.

4. Costs — It's difficult to make exact cost comparisons because of the many different arrangements and optional items which can be added to the different size plows. In general the integral versions are least expensive, the semi-integral are intermediate, and the drawn type are the most expensive.

An additional complicating factor is the fact that, in general, integral plows are the only available type in the very narrow widths of cut; the drawn type is the only one available in the extremely wide width of cut. Thus, only at the intermediate sizes are all three available.

5. Effects on Tractor — The force exerted on the tractor as a result of the weight of the plow and the reaction of the soil against the

plow bottoms is known as the line of pull. This force has pronounced effects on the weight transfer to the rear wheels of the tractor during plowing. The higher the line of pull, the greater the weight transfer to the rear wheels.

Present-day, high-powered tractors depend on this weight transfer . . . and often on added ballast . . . to provide adequate traction for plowing. To provide enough built-in weight in the basic structure of the tractor would make it so heavy that it would be impractical.

The low line of pull resulting from the relatively light weight and short length of integral plows produces limited weight transfer. In heavy soils which tend to produce low lines of pull, the integral plow

provides little weight transfer. In mellow soils, however, the resulting high line of pull may produce more weight transfer in a light integral plow than with a heavier semi-integral version.

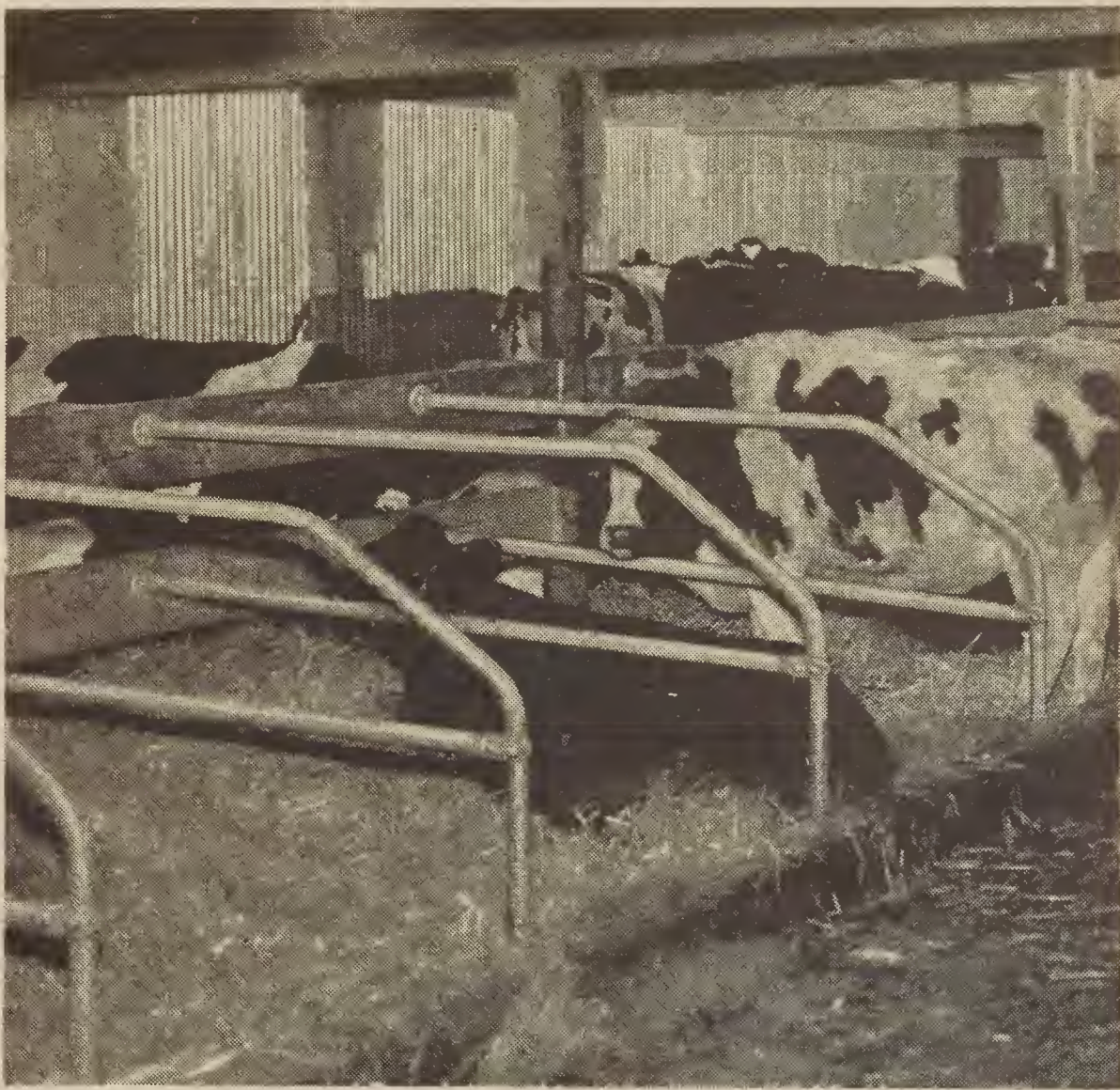
In semi-integral plows, it's important that ample hitch adjustment be provided for satisfactory operation over a wide range of conditions.

For example, if the hitch point is too low for the soil condition, some of the force is carried by the rear wheel of the plow and does not produce transfer of weight to the tractor wheels. Conversely, if the hitch point is too high, the weight transfer is the greatest possible amount, but the rear of the plow tends to plow shallow.

Since the line of pull changes with soil conditions, the usual arrangement is to adjust the plow hitch low enough to prevent the rear of the plow from plowing too shallow when difficult plowing is encountered. Thus, some of the benefits of possible weight transfer are sacrificed in the portions of the field that are less difficult to plow.

Drawn plows permit the best control over the location of line of pull. This line of pull causes weight transfer from the front to the rear wheels of the tractor. However, because a portion of the forces acting upon the plow is carried by the plow wheels, the amount of weight transfer is usually less than that of integral or semi-integral.

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Gayway Farm Notes

by HAROLD HAWLEY

MIXED ROUGHAGE

I've been reading about all-corn silage setups for dairy until I'm beginning to wonder if we aren't overlooking some very important other facts. We've long since passed the point of wondering whether cows will do well on corn silage as the only roughage. This has been well established. Neither is there much argument about growing a maximum of TDN per acre with corn. If land is high-priced this becomes a real consideration. On land not so high-priced . . . and this is a far more common situation on most N.E. farms . . . there are several other considerations besides tons of TDN per acre.

Really the basic one is cost of TDN and protein per unit. We have been boosting corn yields all over the Northeast; hay yields have gone up more slowly. When hay was baled there were some disadvantages to maximum yields of first cutting under the drying conditions most of us face. With the advent of haylage, the ceiling came off as far as hay yields were concerned. Some people who are really feeding their hayfields are pushing TDN and protein yields up sharply, with a consequent drop in cost per unit of TDN and protein. For many of us the cost per unit of TDN in haylage is less than for corn silage.

To further make a case for two roughages, i.e. haylage and corn silage, let me suggest there are far too many farms and fields here in the Northeast which cannot be corned continuously without compaction or erosion, or both. On our setup we find it is about all we can do to make the corn silage we need during the period it is at its best. If we made no haylage, and had to harvest all our feed in the fall, we would certainly be up against a labor peak to stop all labor peaks. With haylage we can spread our harvest from June to October.

Spread Risk

The old saw about having all the eggs in one basket seems to apply here, too. There have been occasional years when storms of hail, wind . . . or drought have seriously reduced corn yields. With two crops, the risk is spread somewhat.

The boys who favor all-corn keep talking about reducing machinery investment by having only one crop. It seems to us that all the silage equipment we have . . . chopper, blower, and wagon . . . are used for both haylage and corn silage. All we have extra is a pick-up head and a windrower which are no more investment than the

self-propelled two-row chopper I suspect we would need if we had to make two or three thousand tons of corn silage in four or five weeks.

No One Answer

I'm sure that for no two of us is there an exact same answer, which is the only reason for commenting on this at all. All we know is that for us with our rolling high-lime land an all-corn roughage could not begin to be as economical or satisfactory as a combination package of haylage and corn.

We like to look at the whole ration and its total cost rather than just at the roughage. It's easy to forget that with just corn silage the percentage protein has to be stepped up pretty sharply, which still costs money. Haylage, if early cut, helps out in this regard.

THE NEW LOOK

Late afternoon (June 9 it was) and the wind really did a job. It was a local, freak type of storm with heavy rain and some twisting to the wind. Of course, trees were most susceptible at that time of year, what with new growth and full foliage. Add to this the absence of real storms for several years, with the consequent build-up of decayed trees and rotten limbs. Well, when that storm hit, a lot of timber bit the dust. The tops which came out of several trees gave our woodlot a new low look . . . a profile as new as dew.

We were commenting about the fact that another storm would have to be a real howler to do much damage after the first one had weeded out the weak trees and limbs and lowered the profile of so many. It was also a natural thing to be thinking about the reduced susceptibility of the new buildings in the area compared to the former ones.

The ranch-type houses certainly don't offer the target for the wind that the fine old two and three-story ones do. Or consider the new-type poultry houses. Having forsaken poultry several years ago, I know nothing about that business, but do observe the long low houses being built. Some change from the remodeled dairy barns with their two and three-story arrangement!

Of course, the new look for dairy regardless of the internal details is for the barns to be one-story affairs with no overhead hay storing. Here again the new profile is low . . . but there is a sour note here. The silos keep getting taller and taller. With the current boom on for silo manufacturers who can

scarcely match production to the demand, one would be rash to predict that we may begin to see some new low profiles for silage storage here in the Northeast.

Let's see what happened. As dairies have increased in size, and as the trend toward haylage and corn silage has accelerated, most of us have thought in terms of another silo or two . . . and probably a larger one at that. In the midwest and West Coast cattle feeding situations, when the number of cattle to be fed gets large many feeders decide on large trench bunker silos, paved and roofed, as a way to cut the investment per ton of silage stored, and as a way to speed up the storing process. I'm just wondering if some of the new dairy setups to be built in the next several years for two, three, or four hundred cows won't be a natural for some of these trench bunker silos. If so, we'll be back in the trend toward the new low look.

NO DECISION

Last year we covered most of our hayfields at least once with liquid manure. This year when we started cutting hay it was clear there was more quackgrass in the stand than normal. In fact, both of the first two fields were clean last year yet had some quack in them this year. We were about to conclude that the manure and the nitrogen in the fertilizer had encouraged the grass.

Well, so then we moved to another field, one not manured last year, and not fertilized this spring, and it was quacky. So we came to no conclusion. Actually, we are still mystified as to where the quackgrass came from. Guess we will continue to manure hayfields, and use some nitrogen in the mixture we use to fertilize the hayfields.

NATURE'S WONDERFUL WAYS

It's always been a source of wonder to me how deer and other wild animals find salt, yet there is no doubt that they do. What is really more important is the urge that drives them to search for it. It even drives cattle to wander. Several years ago we had a bunch of heifers who broke out every day for about a week. Finally we noticed that they were out of salt. Putting another block of salt in the pasture did more than all of the fence mending we had been doing!

All this came to mind as a result of our experience with salt and minerals for our milking bunch this spring. They were getting all the medicated blue salt, block salt, and a simple mineral mix they wanted all winter. Suddenly, in April and May consumption of the mineral mix more than doubled. When we turned them out in their little pasture they had fresh grass for a few days, after which we fed them fresh-chopped haylage. The consumption of the minerals as well as the salt dropped way down

. . . even below the level of the previous winter. Obviously, by late spring they were feeling a shortage of some mineral which they either got from the new grass or haylage, or else being out in the sun enabled them to assimilate some element better. At any rate, what a wonderful thing that nature sets up a craving for something rather than to let a deficiency continue and become a serious thing.

GARBAGE WAGON

For years we used to throw everything from a leaky gas can to broken glass and discarded oil filters in a pile behind the shop. About once a year this had to be all picked up and loaded into the pick-up for a ride to the dump, where it had to be handled again. Finally, about two years ago we salvaged an old running gear from a wagon no longer used (or usable), put some plank on it, and set on a big old leaky stock tank. The whole affair is backed more or less out of sight. We now throw all the junk in it, and when the tank is full we just hook a tractor to it and haul it to the dump. Once there, the tank is pushed over the side to dump it, the empty tank loaded again, and we are all set for another six months. It's the best use we ever made of some worn-out, no-good pieces of equipment.

Dates to Remember

Aug. 3 - Connecticut Holstein-Friesian Assoc. State Black and White Show.

Aug. 4-5 - New England Green Pastures Dairy Farmers Business Management Conference, University of New Hampshire, Durham.

Aug. 8-9 - New York State Horticultural Society summer tour to Massachusetts and New Hampshire.

Aug. 10 - University of Delaware's annual Farm and Home Field Day, Georgetown Agricultural Substation.

Aug. 13 - Kid Show, The Garden State Dairy Goat Association, Round House, Rutgers, New Brunswick, N.J.

Aug. 15-20-XVII International Horticultural Congress, University of Maryland, College Park.

Aug. 17-18 - Northern New York Forage Field Days, LaFargeville, N.Y.

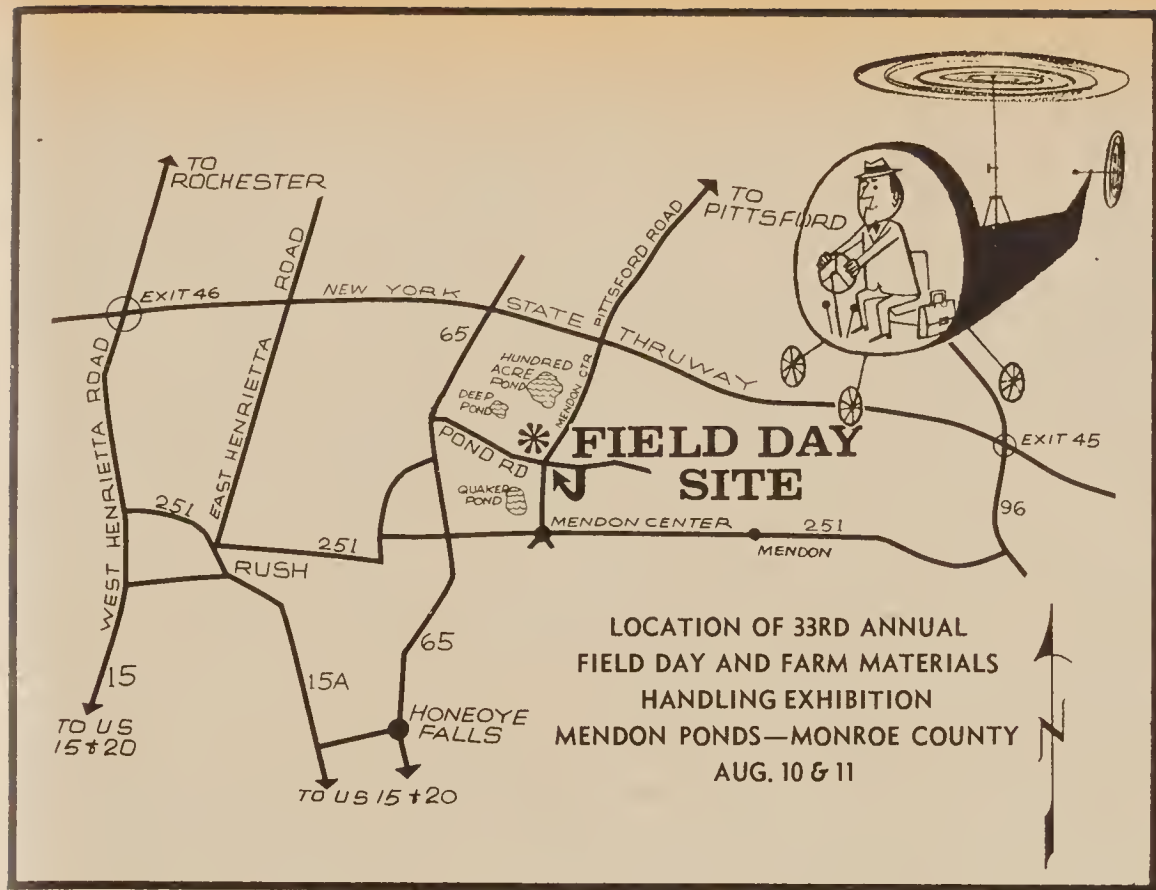
Aug. 18-21 - Pageant of Steam, Roseland Park, Canandaigua, N.Y.

Aug. 19-20 - Vermont Lumberjack Roundup, Branbury State Park, Lake Dunmore, Vermont.

Aug. 25 - Rutgers University Biennial Grassland-Dairy Field Day, Dairy Research Center, Beemerville, N.J.

Aug. 26 - Pennsylvania State Plowing Contest and Farm Materials Handling Day, Belleville.

Sept. 2-5 - Old Mill Village Museum Folk Festival, near New Milford, Pa.



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ANNUAL FIELD DAY AND MATERIALS HANDLING EXHIBITION

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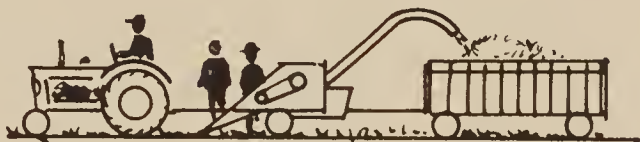
NEW MACHINES, NEW MODELS, NEW FEATURES

More than 10 acres of farmland will be covered by displays of the latest makes, models and styles of farm equipment from pumps to plows, from tractors to trailers. Most major manufacturers will be on hand. They'll have the newest versions of standard makes and models and will introduce several new concepts in farm machinery — models just now getting into production. If you have any plans at all to buy new machinery, the Field Day will provide a golden opportunity to shop around for the make and model that's just right for you.

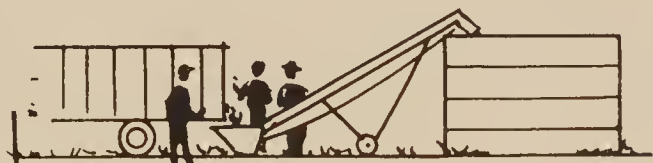
SEE POWER FARM EQUIPMENT IN ACTION



No matter what your line of farming may be, there'll be something of interest. More than one million dollars worth of farm machines will be on display and many will be put through the paces in actual field demonstrations. You'll see a full line of tractors and almost every type of auxiliary equipment from tillage tools to harvesting machines. Among them will be a new two-row potato harvester, a new sugar beet harvester, an air-blast chemical sprayer and several new style forage harvesting and haying machines.



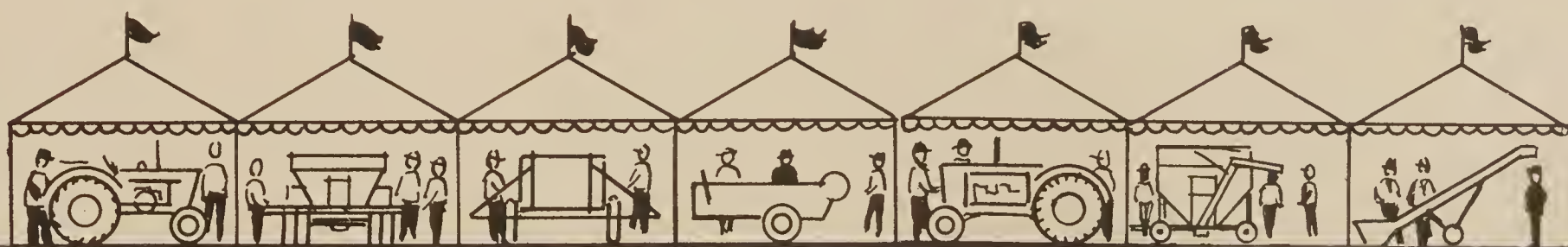
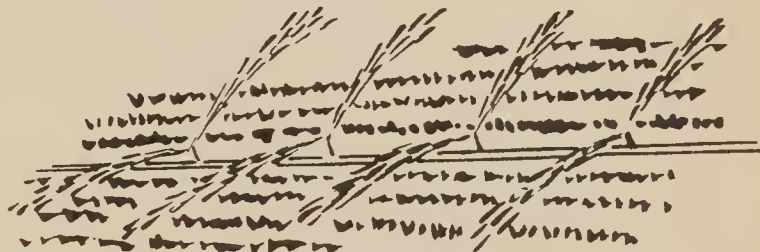
Materials handling on the farm becomes more and more important in the fight for higher output per hour of labor — and materials handling will be a long suit at the Field Day. You'll get the story on new ways to handle feed for maximum efficiency and minimum effort. Manufacturers will display and demonstrate all types of forage handling and carrying equipment from wagon boxes to silo unloaders. Take your pick of the two days — or take part in both — and you'll have plenty of time to get the full story.



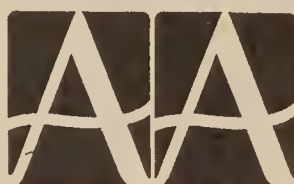
The Field Day hosts have land area totaling more than 2400 acres — plenty of room for many other important farm interests. You'll see demonstrations of practical ways to use farm chemicals. The fertilizer story will be told. There will be silos and milking machines on display, and even a booth on dairy breeding. Many farm-use products ranging from scales to lightning rods will be displayed. Make it a point now to visit the Field Days — and profit by your experience!

EXTRA - WATER SYSTEMS EXHIBIT

Wondering what to do about water? Then make it a must to visit the outstanding Water systems exhibit. You'll get a fountain of new ideas on how to meet your needs practically and effectively. Irrigation equipment, pumps and watering systems will be on display, and experts in the field will be on hand to discuss your individual needs. Whether you're a dairyman, crops farmer, fruit or vegetable grower, a visit to this section can more than pay for the trip.



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NEW BARN

Contractors have just completed for us a new free-stall barn measuring 128 x 77 feet . . . and also a new 20 x 60 silo. The barn has aluminum roofing on both roof and sides; some folks wonder if it's too thin for sidewalls. It's protected by a solid wood wall 30 inches up from the floor, and with planks at intervals above this. We feel that the sides can be protected from damage by cows, and hope the aluminum will keep the building cool.

Barn is of pole-type construction; it's designed to hold 104 stalls eventually, but has only 80 now. There are 18 translucent plastic roof panels to give light; we're glad there are that many.

We're hoping to avoid moisture

condensation on the inside of roof in winter with a setup where air flows from openings along eaves, up along underside of roofing and out a roof-ridge ventilator. There is a 12-inch opening along the length of ridge, covered by a two-slope "upper roof" that is two feet wide on both slopes, and leaving a four-inch opening between ventilator opening cover and main roof.

The silage bunk, measuring 96 x 5 feet, is toward the west side of the building . . . with the hope that whatever snow blows in will be easier to handle in the bunk area than in the free stalls. The bunk is wide, but we weren't sure when building it just which silage conveyor we wanted to use, so we built it wide enough to accommodate any of them. Presently we are using a self-unloading wagon to

put silage into the bunks.

A large hay bunk is presently located where another row of stalls will eventually go. Although we have used greenchop . . . and haylage in '66 . . . we are planning to feed hay and corn silage as free-choice roughage the year 'round. We have another silo at the home farm (14 x 50), plus a 14 x 30 where my father lives . . . all of them will give enough storage space to make this roughage feeding goal become a reality.

Over the years, we've removed the trees from all our tillable land, part of which we formerly used for pasture. Now it doesn't have any shade, and consequently doesn't work very well for pasture. Anyway, the herd acts more contented being at the barn and surrounding exercise area all the time

rather than fighting flies and heat away from the barn area . . . so they won't go out to pasture any more.

Plans call for a milking parlor and holding area in the old barn, but for now we're milking in the stanchions there. The old barn will also serve as hay storage, and hay will be trucked over to the feed bunk in the new structure. Grain is presently fed in the mangers of the stanchion barn while cows are being milked . . . it seems good to have dry manger floors with nothing being spilled from waterers.

We have adequate land to feed the cattle that can be housed by the new setup . . . 300 acres owned, 250 tillable acres rented, and 60 more acres worked on shares. —Alan Weatherby, Trumansburg, New York.

Personal Farm Experience

The items on this page all come from the firing line of farm production

CORN GROWING

From past experience I know that old sods of any kind and corn after corn can be expected to have sod worms. After the ground was plowed and harrowed, I sprayed with heptachlor (aldrin would have achieved the same result). I recall during the first years I owned this farm I planted corn on a field that had been in sod several years and had only a fifty percent stand compared to new sod adjacent.

Then, a couple of years ago, son Jim planted corn on an old sod he had sprayed. He had a yield of 157 bushels per acre and a 22,000 plant population from 25,000 seeds. My corn was after corn that had been planted on new sod the year before. I thought it did not need spray; as a result, I had only an 18,000 plant population and 107 bushels per acre.

Our practice is to lime. Then in either the fall or later apply 300 pounds per acre of 0-20-20, and in the spring before plowing (or drilled in after plowing) 500 pounds of ammonium sulphate. We do this even on alfalfa sods that have been manured. If it were not for harrowing to smooth the ground for spraying, one double disking with a smoothing harrow (spike tooth) behind it is our soil preparation.

We plant in 36-inch rows, kernels 7 inches apart in the rows . . . about 25,000 seeds per acre with 300 pounds 10-10-10 in planter, and where possible plant north and south so the sunlight can get between the rows.

Instead of putting Atrazine on with the planter, we like to use it all over the field about the time the corn comes up. With 2 to 2½ pounds per acre we have such a

perfect kill that last year 20 acres were not even cultivated once. We have never had any trouble with growing oats that are used for a nurse crop the next year; the only dead spots are where the sprayer stopped. However, you cannot plant wheat or any cover crop the same year. —Hugh Fergus, Slippery Rock, Pennsylvania



Merton Plaisted and son

GOOD COWS

We've heard a lot of talk about the most profitable level of milk production, and how far it pays to push a herd.

This past year our herd average was 19,765 pounds of milk, a modest increase over the previous year. To me the important point is that returns over feed cost have increased steadily as the herd average has increased.

Up until 1964, top grain per cow per day was 20 pounds, but this year it has been increased to 28 pounds. We buy a commercial grain mixture (not the cheapest we could get), but I feel definitely that I would have to feed more of a home mixture to get the same pro-

duction. It is possible that heavier feeding of grain would up production, but I feel that we are about on target.

When I finished high school in 1947 I began to buy purebred Holsteins from top herds nearby. By 1951 the herd average was 11,061 pounds of milk . . . in '61 it had grown to 16,202 . . . and, as I said earlier, it was 19,765 pounds last year.

We cull rigidly. After a heifer has milked a year I decide whether to keep her or sell. The decision is based partly on her record, but also on her looks, her disposition, and how she eats.

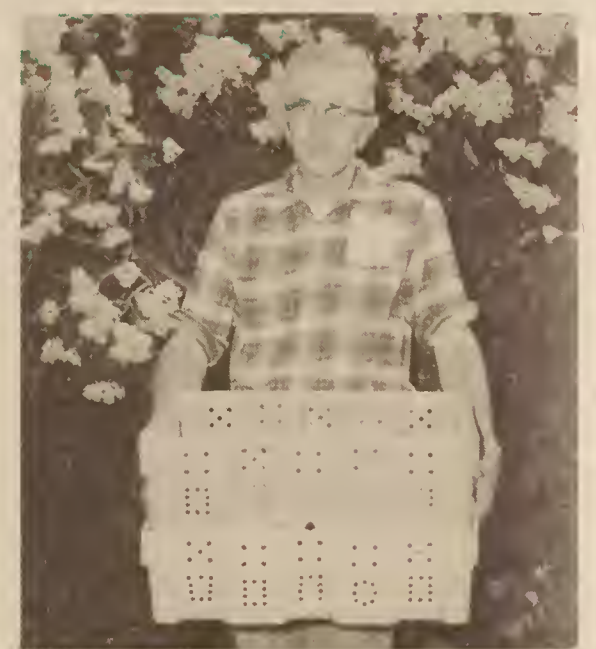
The herd runs on good pasture, but they get hay, haylage or corn silage as soon as the pasture gets short.

We have a stanchion barn, and I would quit milk production before I would go to loosehousing; neither do I want to go to 100 cows.

The herd numbers 26, and I figure it takes a man-and-a-half to care for them. Dad helps, also the two older boys (17 and 14), but we also have 70 ewes and raise a little wheat as a cash crop. We sell purebred heifers as breeders.

I want to pay tribute to my Dad, who taught me most of what I know about livestock.

I have been asked what it takes to develop a herd that has been very close to top herd in DHIC in New York for several years. It seems to me that it is a combination of things. The first is good cows. We started with good ones, and have used artificial insemination. I feel that our roughage has improved in quality . . . but equally important is knowing the cows, and giving them individual attention. —Merton Plaisted, Hammondsport, N.Y.



Robert Beattie holds new plastic containers for grapes.

GRAPE GROWING

In the past 20 years there have been changes in grape growing just as in other farm enterprises.

For example, average yields have increased. Where 2 to 2½ tons per acre were considered good, the State average is now 4 tons, and 5 to 6 tons are not uncommon.

Pruning has changed, with the emphasis on higher trellises to give more bearing surface. Also, there is a trend toward pruning for mechanical harvesting.

Chemical weed control has replaced some cultivation, but we still plow the vineyards every spring. Some claim that cultivation is not necessary where weeds are controlled by chemicals both in and between the rows.

We also use more fertilizer. Every spring we put on 50 to 100 pounds of actual nitrogen per acre; also potash where the vines show potash deficiency. However, there is a trend toward regular application of 300 to 400 pounds of

(Continued on next page)

American Agriculturist, August, 1966

muriate of potash rather than to wait for a deficiency symptom.

Some people think of growing grapes as a seasonal occupation, but actually there is work the year 'round. We prune during most of the winter in our 30 acres. Then in the spring trellises must be repaired, there is cultivating and spraying at least four times, and of course harvest is the big job. We use local help, mostly women, and pay them on a piecework basis.

The Welch people have developed a handy plastic container that holds 40 pounds of grapes. They nest for storing, but can be turned around for stacking.

Most of our acreage is Concords, but around 7 acres are wine grapes that go to Hammondsport. The Concords are trucked to Westfield, usually 12 to 15 tons to a load. — *Robert Beattie, Hector, N. Y.*

SAVING WATER

A.B. MacInness, Litchfield, Maine, has written and shared some of his thoughts on how to get the most out of the limited water his area has been receiving in recent years. He was able to irrigate 25 acres of his crops in 1965, but reports that even so it was a tough year, with the water table dropping substantially.

He reports that he has found it important to rotate his crops so there is periodic winter cover, and that he always plans to plow early enough in the spring so that any cover crop (or weeds) will not pump out very much moisture through transpiration. He further plants across the slope wherever possible so that the rows will catch whatever rainfall is available.

Also, he doesn't do much fall plowing and thereby encourage winter erosion.

He uses cover crops to prevent winter erosion, and recommends snow fences to drift extra snow on knolls that tend to be droughty.

If crops are to be planted in the fall, he recommends knocking weeds down in summer with an herbicide so they won't take moisture from the soil. Finally, he makes a comment that fertile soil stands drought best. This fact was noticeable all over the Northeast during the last few dry years... plants did best on soils where they could use every drop of water they got without being short of fertilizer.

SYRUP MAKER

We produced 850 gallons of syrup from 2,000 taps in 1966... a good year. We tapped the 6th of March this year and finished up on April 15. It was boiled in two arches, each equipped with an oil gun. One arch has a 5 x 9 flue pan, the other has a 5 x 11 evaporator and a syrup pan. We figure on using a gallon of oil to boil down a quart of syrup.

We're using buckets only, although we have tried plastic tubing. The tubing is chewed by squirrels and it's time-consuming to get the ice out when we have a cold snap.

Most of the trees are in our own woods, but we also tap some along the road and pay owners a specified amount per tap. The trees along roads usually produce more sap because of larger root systems and crowns, but they dry up quicker if windy weather comes along. A tree should be at least 12 inches in diameter before it's tapped. We've used the chemical "pills" in the tapholes ever since they were on the market.

Much of the syrup... and some sugar and maple cream... is retailed at our sales outlet on Route 20, where we also sell antique furniture. In fact, our major business is refinishing and selling early American furniture. — *Richard Bury, Morrisville, New York.*

TRENCH SILO

We started using a trench silo in the fall of '65... fed from it between October 20 and December 28. It's 100 feet long, 25 feet wide, and was filled to a depth of about 12 feet.

It has a concrete bottom, and earth sides. We are considering investing enough more to put a roof and sidewalls over it so we could use it for equipment storage when empty of silage. At the present, we have an investment of about \$700 in it.

A front-end loader on a tractor breaks silage out from the pile, then a regular hay elevator conveys it to a self-unloading wagon that in turn discharges into the

silage bunk. All this equipment we had on hand anyway... so there was no extra investment involved.

Lime was spread over the top of silage to prevent top spoilage as much as possible; there was still some, but not bad. A layer of lime, though, is heavy to peel off the top!

All our silage is from corn... we have 110 acres this year. We have 200 milkers on the farm and recently remodeled to free stalls.

We also have upright silos for storing silage. The trench has proved a satisfactory and low-cost storage method, but I confess I'd not want more than one of them. — *Ken Kelso, East Meredith, New York.*

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a breakdown!

AS WE SAW INDIA

Editor's Note: Mr. and Mrs. Chester H. Lee of Dexter, New York, took a trip last winter to India under the sponsorship of "Farmers and World Affairs, Inc." Here is their report:

Farming in India can not be compared to ours: (1) There is a much warmer climate permitting two to four crops per year; (2) The rainfall nearly all comes in July and August, necessitating irrigation for good crops. This has been developed in probably one-sixth of the area and is rapidly expanding at present; (3) There is the age-old taboo against killing

any animal life, especially the cow; (4) The joint family village life system of subsistence remains as the forefathers have done; (5) There is lack of incentive to get forward as a result of the many invasions and dominance of foreign overlords for thousands of years, which has created a fatalistic philosophy.

Much of the farming is done by the "cultivators" of the villages with from one to seven acres, mostly by hand and bullocks, very simple equipment. A few do irrigation by the "Persian Wheel" pumps. The chief purpose has been subsistence of the family.

There has developed, since independence, another group of educated, moneyed people, industrialists, professional people and landlords of the past who have up to 300 acres, who have good crops from good seed, fertilizer, irrigation, some mechanization, who hire help and produce for the market as a contribution to society and country or even as an avocation. Of course, there are many in between, including some very enterprising progressive cultivators who are the real hope of India.

Part of the food problem is due to the political barrier between states and regions, and the reluctance of people to use substitute foods in times of shortage. This

is complicated due to so many different languages, illiteracy and lack of communication. Schools are now available in most areas.

The people of India have practically none of the things we call necessities such as automobiles, radios, refrigerators, or even household furniture. Their clothing is simple, but attractive; houses are mainly small, roofed areas; the method of transportation is foot or bicycle; food is mainly vegetarian, schools are crowded. The minimum wage is 15 rupees (\$3.50) per month, with a typical laborer's daily wage 1 to 2 rupees.

The People

We found the people to be very attractive, slender, with excellent posture and pleasing mannerisms and gestures. They were very friendly and hospitable with what they had, and eager to learn about us and our ways of farming and living.

Here are my personal reactions to India:

1. Much greater in size, production, and advancement than I realized and nearly self-sufficient.
2. Much tolerance and adjustment of everyone to different religions, ideas and status.
3. Schools, extension service and training centers, research, production of fertilizer, practical equipment, cultivator awakening, and public awareness of need put India on the threshold of great advances.
4. Interest and challenge of wealthy and educated from all walks of life raise the prestige of the cultivator and give a model for possibilities of production.
5. Acceptance, when understood, of family planning, and beginning of change in attitude toward the cow.
6. Awareness of danger in bureaucracy, government domination of co-ops and industry, false security of "cure-all" of hybrid seed and chemical fertilizer, and overmechanization.
7. Power and increasing need of the judgment of all cultivators through their Farmer's Forum.

Other observations:

1. India will become self-sufficient in not too distant future.
2. Temporary aid to India should be given in a manner to assure adequate food prices to the cultivators to stimulate production.
3. Technical and educational assistance should be given by those experienced in their field with consideration for local climatic and cultural conditions.
4. India should be treated more as an equal.
5. Very little danger of Communism.
6. Let us hope that "modernization" can come without too much loss of philosophy, rich historic culture, and typical Indian food, dress manners, and attitudes.

We made many friends, have many pictures and personal experiences which we will gladly share with others at convenient times so that the purpose of our trip... "Peace Through Mutual Understanding"... may be achieved.

American Agriculturist, August, 1966



How you can bring happiness to millions of gallons of water just by saying three little words

*the words being **Ultra-Line** plastic pipe*

To water, happiness is a thing called Ultra-line. Our special scientific Laughing-Water-Meter has proven that. We assume it's because Ultra-line plastic pipe is so smooth inside that water can run full tilt. And because there's no way it can rust or corrode, the water stays pure. In addition, Ultra-line coilable polyethylene pipe is so strong almost nothing will crunch through. It gives water that secure feeling. And just to make sure of the

security, we give you a non-prorated 10-year Warranty covering complete cost of pipe and installation. Driscopipe Ultra-line is backed by years of research and testing, and approved by the National Sanitation Foundation. It gives you a happy feeling because it's easy to install. Bring happiness to water. Ask your hardware dealer, contractor, or water well driller for Ultra-line.



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TIPS FOR HEALTHY HORSES

A recent publication circulated by a large Northeast co-op stated that there are more horses in this area now than there were in 1925. No one who spends much time in the rural areas of our northeastern states will doubt this statement.

Of course, many of these are race horses, but the vast majority are riding horses of all sorts. Anyone who has been bitten by the horse show bug can find at least a show a week within a seventy-mile radius of home to try their luck at.

The greatest increase seems to be in English-type riding horses, the "pony hunter" being a great favorite. A "pony" must be 14.2 hands or under, according to American Horse Shows Association rules, so don't be surprised at the size of some of the entries if you are a spectator at a pony hunter exhibition. Pony hunter riders must not have reached their eighteenth birthday, and therefore are mainly girls and boys new to the horse show circuit.

Some Answers

To all such young horse owners and exhibitors I should like to offer some answers to questions asked, often too late, concerning the health of their mounts before, during, and after horse shows.

First, let's start with a healthy horse (I know the rule book calls them ponies, but to the veterinarian they are horses). He should be parasite-free. Have your veterinarian run a test for parasites on his manure. If the horse proves to have worms, worm him according to your veterinarian's recommendation. Your veterinarian may then recommend that you feed a phenothiazine vitamin mixture continually, particularly if the horse is to be pastured or stabled with many other horses. If your horse shows signs of external parasites, such as lice, mange, or ringworm, have him treated. A parasite-free horse gains weight and his coat shines up easily. Otherwise he will always be thin regardless of the amount of feed you are using.

When you are showing horses their feet should be taken care of by your horse-shoer about once a month. Hackney ponies, gaited saddle horses, and those requiring special shoes may need to be reshod before each show.

Use a good fly repellent, that is one which repels flies as well as destroying them, both during and before shows. Swamp fever or infectious equine anemia is spread from horse to horse by bloodsucking flies and mosquitoes. There is no cure for this disease, so keep the flies off when near other horses.

Any horse worth owning should have permanent protection against tetanus (lockjaw) and have a booster annually. If you are going to many shows your veterinarian may recommend vaccination against equine influenza (flu) and equine encephelomyelitis (sleeping

sickness). None of these immunizations are one hundred percent effective, but if you have all three and they are repeated yearly you have a much greater chance of keeping your horse free of disease.

Now you are ready to go to the show. Other people can give you advice on "vanning" or "truck-ing," which today usually means "trailer-ing." My one piece of advice would be to be sure to use leg bandages on all four legs of any horse to be shipped. Cotton leg bandages over a layer or pad of

cotton are necessary to prevent injury to the delicate lower leg of the horse. "Bells," "boots," or any other type of hoof covers are needed on some horses to prevent injury to the coronary band while being shipped. Again, this is more essential with the gaited horses. Elastic-type bandage can be used to protect the tail if your horse rubs on the tailgate.

Upon arriving at a one-day show, do not overfeed. Try to keep your horse from eating grass contaminated by other horses, or he may pick up worm eggs. It goes without saying that you should never water or grain horses out of common tubs or pails used by other horses. Hay bags keep hay

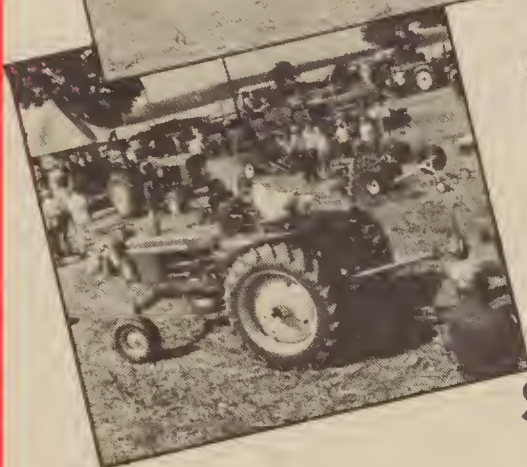
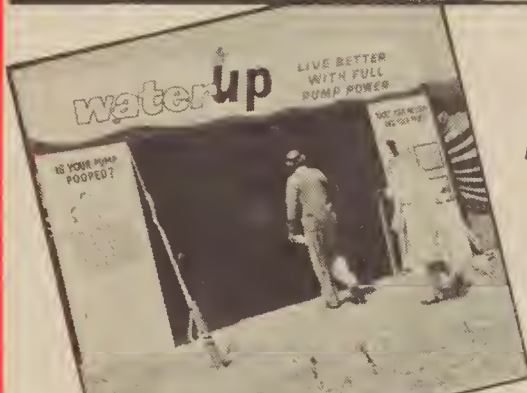
off the ground where your horse can pick up infection or parasites, but this is not foolproof prevention, because he will still pick up hay that he drops.

Ordinarily, it is better to blanket horses while shipping even on a hot day. When you arrive at the show grounds take your horse off the vehicle and walk him to limber him up, and check him over for minor wounds. Your veterinarian can give you a colorless wound antiseptic that can be used instead of the purple preparation commonly used.

A horse that doesn't drink enough water is just as much of a problem at shows as one that

(Continued on page 18)

Plan to visit the FARM MATERIALS HANDLING EXHIBITION



AUGUST 10th & 11th

at the corner of Mendon Center and Pond Road, 4 miles south of Pittsford.



See the very latest equipment for profitable farming!

Every profit-minded farmer will find this show a must! You'll see all the latest materials handling equipment you need for modern, progressive farming...TO CUT LABOR COSTS AND "SHORTEN" YOUR WORK DAY!

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WATCH THOSE BARGAINS!

by Nenetzin R. White

I WOULD LIKE to believe that all nurserymen are honest. I'd also like to believe that every doctor, lawyer, merchant and chief is completely honest, but "it ain't necessarily so!" I do believe that reputable nurserymen or plantsmen are infuriated by misleading advertising in our field. We can't blame the ad writers because these ads are accepted and published by growers.

The following warning to watch out for this type of advertising comes from the Arkansas State Plant Board (it could apply to New York, Vermont, or any other state):

The adroit pen of the nursery ad writer can often lead one to believe he is getting something which he is not. A good example is the "Tree Tomato" being extolled in glowing prose and eye-catching color by a pamphlet showing up in mail boxes everywhere this spring. This plant is not the tree tomato (a true tomato variety) being sold by legitimate plant growers.

"These amazing tomatoes," their promoter would have the undiscerning reader believe, "are a recent development of New Zealand, hardy outdoors, capable of bearing bumper crops in a short time, and desirable for their luscious, tasty fruit."

Prominently displayed in the ads are statements such as these:

"Grow it outdoors as a tree — indoors as a house plant. Produces quick bumper crops . . . up to 40-60 pounds per year! Delicious . . . plum shaped, tart sweet . . . so firm and flavorful!"

The true facts concerning this plant, after discovering its scientific name in the verbiage and color of the ad, can be found in Bailey's Standard Cyclopedia on Horticulture, Volume 2, page 943. It states:

"Cyphomandra betacea. Tree tomato. South American spineless shrub . . . sometimes grown for its edible fruit. Under cultivation it becomes a tree-shaped, half-woody plant, six to ten feet high. Fruit seedy, musky-acid and tomato like in flavor . . . bears the second and third year from seed, under glass (where it must be grown in Northern states). Of little concern to the horticulturist. Grown mostly as a curiosity." (Underlining in quotation is for emphasis.)

From this description it can be readily concluded that the tree tomato did not originate nor did it develop in New Zealand, since it is indigenous to South America. It does not bear quickly, requiring two to three years to come into production after planting the seed. Assuming that the nursery supplies its customers with seedlings, it would be at least the second year before fruit is borne.

It is not winter-hardy, being half-woody, and must be grown in greenhouses or indoors in most of the United States. Neither does

a musky-acid, tomato-like flavor necessarily indicate a tasty delicacy. In reality, the only kinship to the tomato this plant can claim is belonging to the same family, Solanaceae. So does horse-nettle and Purple Nightshade, two of Arkansas' noxious weeds.

Changes Every Year

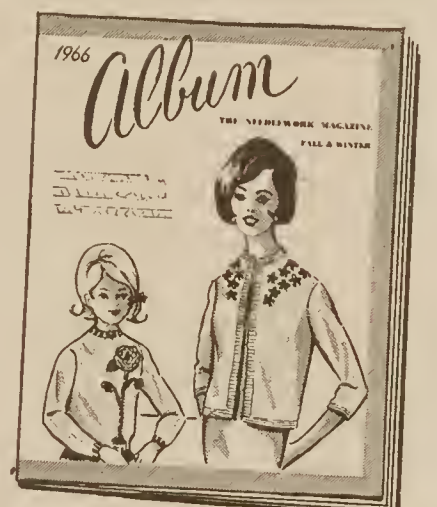
So much for the warning from the Arkansas State Plant Board. These unscrupulous promotions vary from one season to another — this year, the Tree Tomato and last year, Magnificent Robinia (the common old black locust called by its generic name). We have also had climbing strawberry (almost any strawberry will climb if its runners are trained) and Ailanthus tree, a weed tree of vacant lots and alleys commonly called "Tree of Heaven."

The American Association of Nurserymen states, "Fly-by-night operators advertising plants usually concentrate on one product a season and work through direct mail advertising, radio and large ads in newspapers."

Following is a list of safeguards for home owners, approved by the Federal Trade Commission and the American Association of Nurserymen:

1. Beware of outlandish exaggerations. The clue to practically all misleading advertising is heavily exaggerated claims.
2. If in doubt about advertising claims, check with established nurserymen, the Better Business Service, Extension Service, or other reliable sources before ordering.
3. Question claims of "tremendous bargains." Write the firm for its retail catalog in which you can check regular prices.
4. If you have any doubt about the age, size, grade or quality of the plant, write and inquire about it before purchasing.

Fall-Winter Album



The highlight of this issue is KNIT — 12 pages of designs, Learn-How and news! Also included are directions for making hand-work items and dozens of designs from which to choose your patterns for crochet, embroidery, knit, sew, quilt, etc.! Only 50 cents a copy!

To order, send 50 cents in coins to: American Agriculturist, 1150 Avenue of the Americas, New York, N.Y. 10036.

American Agriculturist, August, 1966

HOMELITE

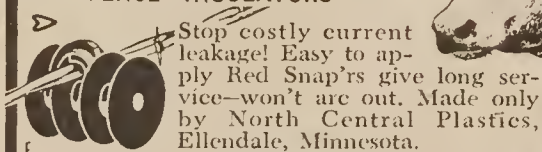
CHAIN SAWS
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See the Yellow Pages for your nearest dealer, or write

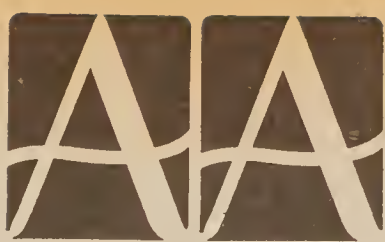
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POLYETHYLENE ELECTRIC
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FARM DOLLAR GUIDE

PRICE SUPPORT for manufactured milk has been raised 50 cents per cwt. to \$4.00, effective through March '67. (On April 1 it was raised from \$3.24 to \$3.50). For over a year U.S. milk production for each month has been below the same month in the previous year. Government spokesmen hope price increase will help to reverse trend.

Also, Class I price was raised from \$5.30 to \$5.50 effective July 5.

From these increases dairymen will benefit about 45 to 50 cents per cwt. Recently the market price has been higher than support level for milk for manufacture.

AUGUST IS A GOOD MONTH for spreading lime. The way to get it on fast is to use a lime-spreading service! Soil will be compacted less than in the spring, and the lime will have more time to react with the soil before spring planting.

ON MAY 5, U.S. wheat acreage allotment for '67 was increased by 15 percent. By the time you read this, allotment is likely to be stepped up another 5 to 10 percent. May mean 65 million acres, up to about 13 million from this year.

Also expected is increase in '67 feed grain acreage.

Total increase in crop acreage may reach 23 million acres IF government can persuade farmers.

U.S. 1966 PIG CROP will not only be well above last year's, but will be the largest since 1963 (if farmers carry out their June-November intentions), according to USDA's Crop Reporting Board.

IN A 1500-COW HERD in California, producing cows are not bred until daily production in pounds falls below the number of days since fresh. For example, if a cow came in heat 60 days after calving, and was producing 80 pounds of milk a day, she would not be bred. If at next heat ... say 81 days after freshening ... production had dropped below 80 pounds, she would be bred. Result, says the manager (a veterinarian) they have no trouble in getting high producers with calf.

A WOOL INCENTIVE price of 66 cents per pound for the 1967 marketing year has been announced, by USDA, an increase of 1 cent above present level.

The Song of the Lazy Farmer

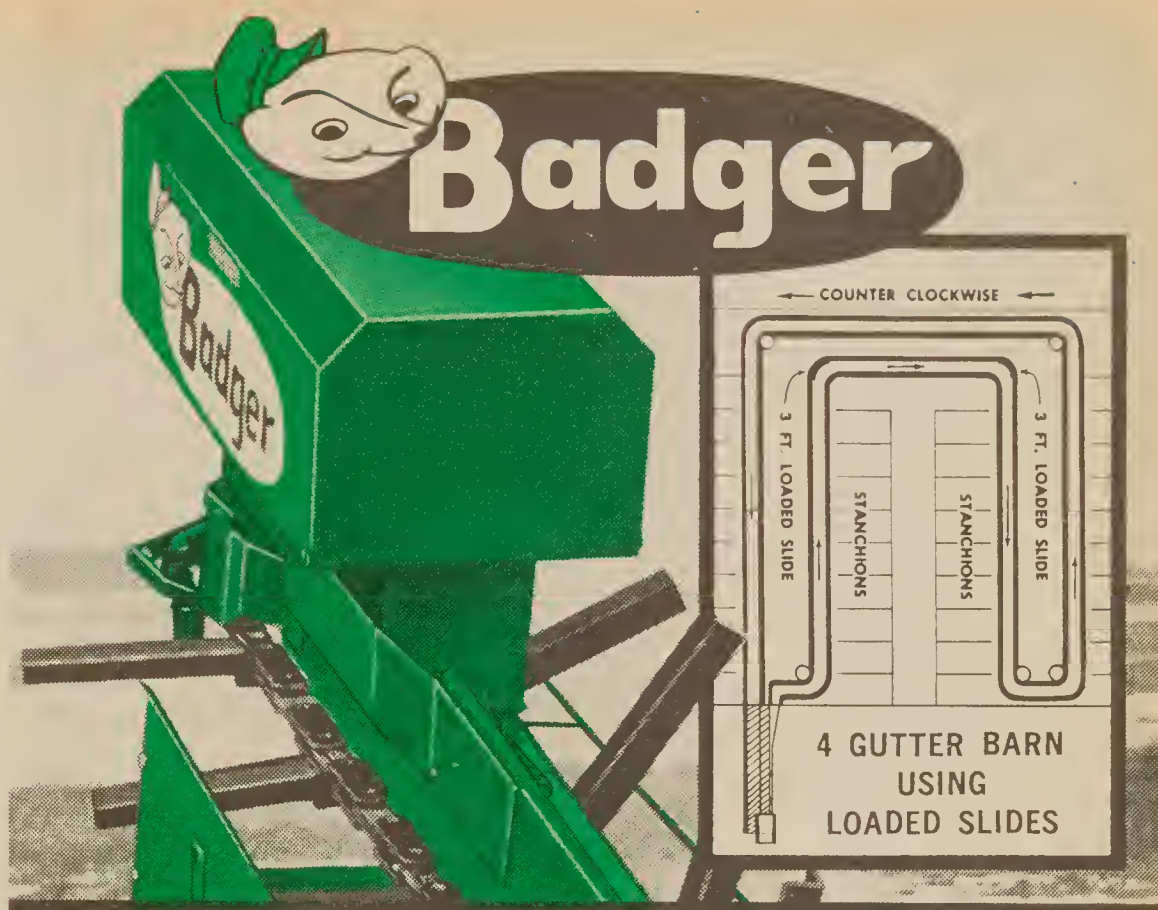


up each welcome drop as eagerly as kids with pop; a shower drops the temperature like some big air conditioner, it washes out the atmosphere and leaves the air all fresh and clear; there is a new and cleaner smell that somehow makes you feel just swell. And if you want to snooze a bit there is no better time for it, the lullaby that raindrops sing makes sleeping wonderful, by jing.

Of course, there are folks who complain whenever it begins to rain; my neighbor hates to see it fall though grass and grain may need it all, he can be shooting off his mouth about the dangers of a drouth and still begin to whine and cry when thunder rolls across the sky. It seems to come when he, somehow, has got hay down or corn to plow, or else he must forget about a trip to town 'til roads dry out. And poor Mirandy, she contends that rain is one of my best friends; she claims clouds always wait 'til she has outside work saved up for me.

Unless you live upon the land you simply cannot understand the joy a summer rain can mean as it repaints the fields with green. Dry earth soaks

American Agriculturist, August, 1966



FOR TOUGH JOBS AMERICA'S No. 1 BARN CLEANER

Two gutters ... four gutters ... angles ... odd shapes ... in all sorts of barns, every day more than 20,000 Badger Barn Cleaners do their job. And each day the number grows.

There are two reasons why the Badger Barn Cleaner is No. 1:

1. Unbeatable barn cleaning
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Badgers keep on cleaning barns long after other cleaners have been replaced. And your Badger dealer is close by and competent. He knows how to lay out a cleaning system and install it to keep running day after day, trouble-free.

And there's a bonus with your Badger: Your Badger Barn Cleaner will quickly and simply convert to become an already-installed portion of a Badger Liquid Manure System.

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FINANCING AVAILABLE Badger Finance Plan covers all Badger materials-handling and field equipment. Leasing, too!



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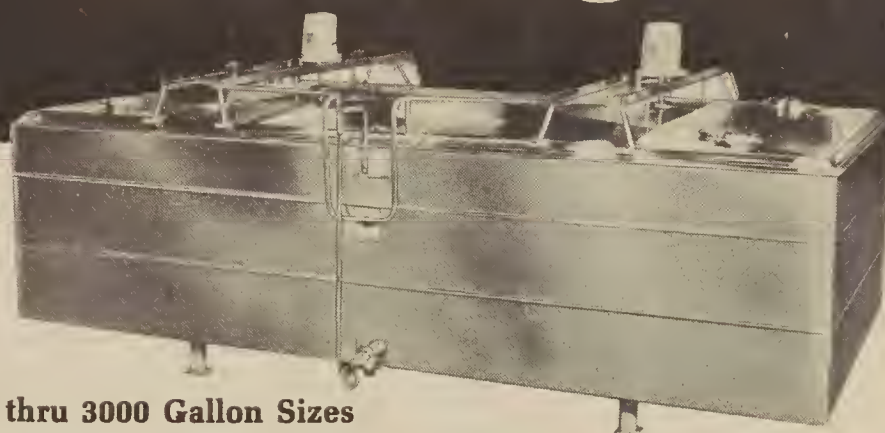
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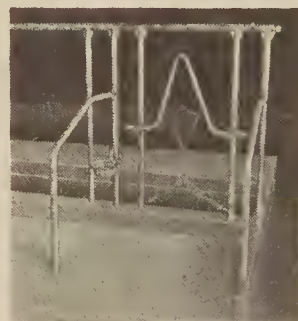
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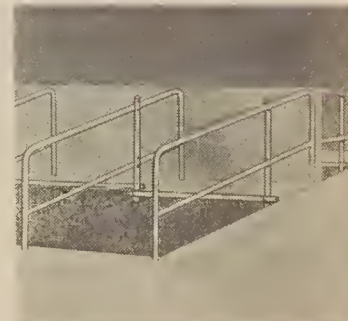
- Easiest to clean ... automatically, or by hand.
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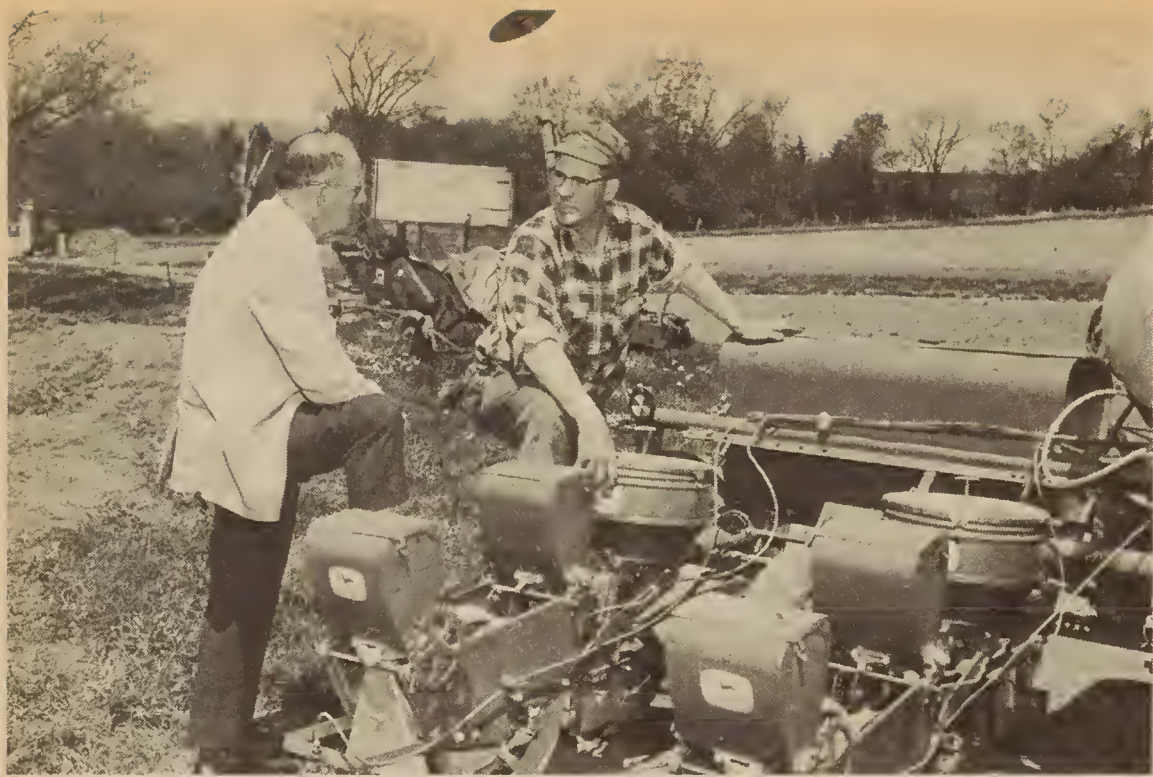
- Designed for increased milk production.
- Cleaner cows with less work for you.



FREE STALLS



For more information write to
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Don Stanton (right) visits with N.Y.S. Electric and Gas farm representative Read Adams. Planter is equipped for applying liquid or granular herbicide, and liquid or dry fertilizer, and an insecticide.

INTENSIVE ACRES

by Gordon Conklin

STARTING with one card table as a roadside stand about 15 years ago, Don Stanton of North Norwich, New York, has developed a retail sales outlet that moves produce grown on 80 to 90 acres. He plants about 30 acres of sweet corn and four acres of strawberry plants each year . . . as well as growing raspberries, cucumbers, tomatoes, summer and winter squash, pumpkins, Indian corn, gourds, peppers, onions and snap beans.

Peas and strawberries start the season, and squash end it up around Christmas time. Sweet corn comes along by the 25th of July . . . Spring Gold and Golden Beauty for early varieties, with Northern Belle, Wonderful, and Lochief for the main season.

Picking peas, by the way, is a job local labor won't tackle, so it's handled by a family of migrants who have been working for the Stantons for many summers. Local people will hire out to pick strawberries, though . . . and Don sometimes allows customers to "pick 'em yourself" in the old beds that are pretty well run out compared to newer plantings.

There are 7,000 feet of irrigation pipe on this farm, enough to reach any field on the home farm; in some dry years every field has been irrigated. The rig has been used every year, regardless of a "wet" or "dry" season. Don says, "Irrigation equipment is necessary insurance in this business." He has \$15,000 invested in pipe, pump,

and the 95 H.P. Chrysler industrial engine that pounds the water out to thirsty crops . . . covering three acres at a setting.

To provide flexibility of marketing, not all produce goes through the retail outlet at the farm. There are two nearby retail farmers' markets (one in Oxford and one in Norwich) where customers come to purchase directly from farmers. Cucumbers and tomatoes are also wholesaled to the Norwich Packaging Company's plant just a "hoot and a holler" from the Stanton farm.

Occasionally, Don takes a load to the Washington Street produce market in New York City. He reports receiving as high as \$3.50 to \$5.00 a bushel for peas . . . picked to demanding specifications by the migrant family already mentioned in response to the incentive of piecework rates about 50 percent above prevailing rates in the area.

Double Use

So far, the Stantons have not had to use insecticides on sweet corn, so the stalks can be chopped for silage. Oh, yes . . . I forgot to mention another part of the business involving 85 cows housed in a new free stall barn attached to the old stanchion barn. It's a clear-span structure arched by laminated wood rafters with 73 stalls (37 stanchions are still available for use in the old barn).

"Any new farm building may be obsolete in 10 years," Don says, "so we tried to build one that can be used for several purposes." Instead of the usual pipe or boards across the top of free stalls that force cattle back when getting up so manure will fall in alleyways, this barn has a hay feeding bunk

between two rows that accomplishes the same purpose.

There are around 130 acres of field corn grown on this river-bottom farm each year . . . 100 for picking and 30 for silage. Don has a 20 x 27 Harvestore to store high-moisture shelled corn for cow feed, starts picking late in September most years. There are fields here that have grown corn for 25 years in a row!

Predictably, soil insects have built up with this kind of cropping . . . making necessary the use of an insecticide (diazinon) to clean up wireworms and the northern corn rootworm. Nutgrass posed a real threat in some fields, too, but an application of five pounds per acre of atrazine for four years in a row cleaned up this pest. Crabgrass remains a problem, but it can be handled by cultivation.

Fertilization of field corn varies according to soil tests, but typically might include 460 pounds per acre of 35-14-14 plowed down, plus 200 pounds of dry 10-20-10 in the planter . . . or 5 gallons of liquid complete (also 10-20-10) hosed in with the seed. Herbicides are atrazine for sweet corn, LV4 (2,4-D ester) for field corn, Premerge for beans.

The Stantons are not "all corn" in feeding cows; they harvested 17,000 bales of hay in 1965 on another farm they own, and from some leased land. At the home farm, every tillable acre is plowed every year.

Here's an example of the intensification coming to northeastern agriculture as urbanization sweeps the region. The best land is under heavy pressure, and it has to produce a high value product per acre to stay in farming.



Keith Alcott admires a bounteous crop of greenhouse tomatoes.

CLUB 21 ALONG 20

ALONG highway Route 20 near Waterville, New York, Keith Alcott has developed a sizable plant and tomato business, using eight "Cornell 21" plastic greenhouses. Each house is 100 feet long by 21 wide, branching off a center structure.

There are two layers of plastic, separated with 2 x 2's at intervals. Outside layer is 6 mil standard plastic; inside layer is 4 mil ultraviolet. Keith reports that he will eventually replace the present material with 6 mil ultraviolet on the

outside and continue with 4 mil "ultra" on the inside.

Tomatoes are the big crop here . . . with bedding plants next in importance. "Start in the business with bedding plants rather than tomatoes," Keith recommends. Felt building paper is used to make short cylinders into which a sterile plant growing medium for tomatoes is placed, similar to what is known as "Cornell Artificial Soil Mix A." (For details on artificial soil mixes and plastic greenhouses, the reader should contact Professor Ray Sheldrake, Vegetable Crops Department, Cornell Uni-

versity, Ithaca, New York 14850.)

Plant diseases are normally no problem because of sterile growing medium and controlled ventilation. Insects sometimes have to be spot-sprayed with Systox or Thiodan, but bugs haven't proved to be much of a problem either.

Irrigated

Each tomato plant has a tiny individual hose for watering, each branching off a main hose going down the row (Chapin system). Fertilizer is applied in water . . . a liquid 10-20-10 with trace minerals added. "We have a proportioner," Keith says, "but find it's more accurate to mix liquid fertilizer with water in a big tank and then pump the mixture into the watering system."

Keith started picking tomatoes around May 9, plans to continue until field-picked tomatoes "break" the market in mid-August (it was September 1 in '65). They are sold retail at the farm, also to chain stores and to a broker in the Utica area. He hopes to reach a production goal of 15 pounds per plant this year. Half the bedding plants are retailed at the farm, the rest wholesaled in the area.

In any case, he'll have plenty to keep him busy. The farm business, known as Clifford Alcott and

Son, also includes a dairy operation (90 cows), and cash crops like 80 acres of red kidney beans and 40 acres of cabbage. — G. L. Conklin

POTATO YEARBOOK

The new 1966 edition of the American Potato Yearbook is off the press. The current issue, the largest and most complete in its nineteen-year history, is packed with information.

The 1966 volume contains more than 300 new references to potato culture in the United States, Canada and Europe. Other important items include 1966 acreage guides, the names of more than two hundred leading research workers, periodicals of specific interest to potato growers, as well as information on where and how to secure all kinds of valuable material covering every phase of the potato industry.

Copies of the Yearbook may be secured from the American Potato Yearbook, P.O. Box 398, Westfield, New Jersey, 07091. An individual copy sells for \$2 (\$2.50 foreign). A complete volume, 1954-1966, is available at \$24.

American Agriculturist, August, 1966

DEKALB[®]

XL

explosion



New, Modern Corn Sweeps the Country!

New DEKALB[®] XL Cornfits Modern Farming

XL-335 **New** Modern High Population Hybrid

XL-335 is a high population hybrid with a maturity halfway between XL-325 and XL-45. Takes high populations with excellent stalk strength. Slightly taller than XL-45 with outstanding disease resistance. Ears are of good length with well filled tips and high quality. XL-335 is an excellent variety for harvest with either picker or combine.

59 Long Time Favorite for Grain, Silage

Prior to the introduction of the XL's, DeKalb 59 was the most popular DeKalb hybrid in its 105 day maturity zone. Its long ears, vigor, and good yields made it widely acceptable for either grain or silage. DeKalb 59 is a four-way cross with wide adaptation to different soils and varying seasons. For silage use, it can be planted at 20,000.

29 Earliest DeKalb hybrid of about 75 day maturity. Excellent yields, good stalks.

XL-301 **New** Earliest of the XL's at 80-85 days maturity. Uniform, vigorous.

XL-45 A standard of perfection in the northern corn belt. XL-45 is short; takes high populations; harvests easily by picker or combine; has a high percent of grain to fodder; makes high energy silage, with green leaves, ripe grain.

224 A four-way hybrid with a 110 day maturity similar to XL-325. Widely adapted to all conditions of soil fertility and varying seasons. Long ears, good stalk and easy harvesting qualities. Can be planted up to 18,000 rate at harvest.

415a A short, dark green, thick-eared hybrid which can take higher populations. Maturity rating is 115 days. It is an excellent silage hybrid with a high proportion of grain to fodder.

XL-325 Short, High Population, Outstanding Ear Type

An outstanding three-way cross, five days later than XL-315. One of the new modern hybrids—short stalked, with ability to thrive in narrow rows at high populations. Ears are girthy, deep-kerneled, well filled to the tips. Excellent for high-energy silage production with big grain yields, disease resistance, short stalks. Ear height on stalks is low and very uniform.

XL-302 85 Days, Top-Notch Yields

Excellent yielder in its maturity with unusually good stalk strength. Twenty-one bushels above average in DeKalb's Michigan yield trial.

XL-15 Attractive, Uniform Single Cross

Single cross with exceptional uniformity, and big yields. 105 day maturity. Attractive ears.

45 A four-way cross of 90 day maturity. A favorite for many years in the northern corn belt.

XT-138 85 day hybrid with new special breeding. Short, strong stalks. Good yielder.

XT-218 A relatively new variety with special breeding. Has high yielding ability, good stalk strength and wide adaptation, coupled with a short plant and an attractive, deep-kerneled, girthy ear. Maturity in the 110 day bracket.

238 A four-way cross with 115 day maturity—the same as XL-45 and 415a. A reliable yielder with good stalk strength and blocky, solid ears. Good silage variety. 238 has an excellent record at higher populations in corn belt testing.

441a A modification of 441, which is above average height with long ears and excellent grain yields. Makes a good silage corn for So. New York with big tonages and good proportion of grain.

Characteristics of Hybrids

EARLIEST TO LATEST	POP. RATE*	TOLERANCE RATING		
		BLIGHT	BORER	STALK ROT
29	AA	Very Good	Very Good	Very Good
XL-301	H	Very Good	Very Good	Excellent
XT-138	AA	Very Good	Excellent	Excellent
XL-302	H	Excellent	Very Good	Excellent
45	H	Excellent	Very Good	Excellent
XL-304	H	Excellent	Excellent	Excellent
58	A	Fair	Fair	Fair
XL-307	H	Excellent	Excellent	Excellent
XL-306	H	Excellent	Excellent	Excellent
XL-315	AA	Excellent	Very Good	Excellent
XL-15	A	Very Good	Good	Very Good
59	A	Very Good	Very Good	Very Good
224	AA	Very Good	Excellent	Very Good
XT-218	H	Excellent	Very Good	Excellent
XL-325	VH	Excellent	Excellent	Excellent
XL-335	VH	Very Good	Excellent	Outstanding
238	H	Very Good	Excellent	Excellent
415a	H	Excellent	Excellent	Very Good
XL-45	VH	Excellent	Excellent	Outstanding
441a	H	Very Good	Excellent	Excellent

*Recommendations are VH—very high; H—high; AA—above average; A—average and M—moderate or somewhat below average.

Shorter, Tougher Varieties take High Population, Narrow Row Planting and Heavy Fertilization! That's what farmers want and that's what DEKALB XL's give them!

XL's have all these MODERN GOLDEN PROFIT FEATURES that help you make from your land and labor.



SHORT CORN XL's bred for narrow rows, high population high fertilization and combine harvest.



NARROW ROWS Special XL's which take crowding, increase yields and remain short are best for 30-inch rows and narrower rows.

DEKALB'S 5-POINT PROFIT PROGRAM

- 1 Plant Thick and Early—for bigger yields, stronger stalks, shorter stalks.
- 2 Apply More Fertilizer—to maximize profits.
- 3 Control Weeds—to assure that only corn uses nutrients, water and light.
- 4 Control Insects—for higher yields and more quality.

5 Plant all DEKALB

XL-315 Short, High Yielding 105 Day Three-Way

XL-315 is a short, high-yielding three-way cross with the ability to adapt to almost any soil or fertility condition. It is well adapted to higher populations with the bred-in ability to put an ear on every stalk. Maturity is almost identical with that of DeKalb 59 and XL-15. A farmer who planted XL-315 for the first time in 1965 reported: "I planted in 30" rows for a harvest stand of 20,000. Standability of my XL-315 was excellent. I thought the height was perfect for combining, with ears waist-high and there was no ear dropping. My best yield with XL-315 was 131.2 bushels of No. 2 corn on a measured acre. I compared XL-315 with XL-15 and found it to have a considerably stronger stalk." If you have liked XL-15, you should like XL-315 even better.

XL-307 Short, Dark Green—Top Standing Ability

A relatively new three-way which combines strong stalks, short, dark green plants and ability to take high populations.

In DeKalb field trials in 1965 in two northern states in 30 inch rows and at a 24,000 population, XL-307 ranked first among 25 entries on stalk quality. Lodging was less than half of the test average. In addition, it was the earliest maturing entry of the group. In a similar test involving 49 entries in four different states at 20,000 populations, XL-307 ranked 2nd among all entries on stalk quality, and was first among all commercial entries both DeKalb and competitive. In maturity, XL-307 is rated as 100 days. It is especially for farmers going for the top yield with high populations and high fertilization.

XL-306 Short, Dark Green, Attractive

Introduction with an excellent test record which may well become the top selection for the 100 day maturity zones. XL-306 is one of the outstanding three-way crosses with excellent disease resistance and ability to take high populations.

DeKalb tests show XL-306 to be a hybrid of balanced performance between yield and stalk quality. In DeKalb's testing at locations in four different states at 20,000 harvest population, XL-306 was the top ranking commercial variety on yield, with a yield 9 bushels above the average, and stalk lodging well below average. In a later maturity zone, it duplicated this record with a yield 10 bushels above the average, and below average stalk lodging. These trials were at high population rates in South Dakota, Canada, Wisconsin, Michigan and Minnesota.

XL-304 Great Yielding—95 Day Three-Way

Earliest of the four varieties featured here and the most outstanding in yielding ability. XL-304 yields like varieties which are 10 days later in maturity. In official state yield trials in both North Dakota and South Dakota, XL-304 ranked right at the top. In one two-year trial involving 27 hybrids, XL-304 was first on yield, third on stalk quality and was in the earliest one-fourth of hybrids tested. In DeKalb's own testing in four northern states, XL-304 outyielded all 25 entries at the 24,000 population with an average yield of 108.8 bushels—14.8 bushels above the average. In three Michigan counties in 1965 in official trials, XL-304 was 10 bushels above test averages. Definitely a top yielding variety—try XL-304 in 1967.

MORE FARMERS PLANT DEKALB Modern Seed for Modern Farming THAN ANY OTHER BRAND

N.Y.—CORN

BHL



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Top Farmers Grow DEKALB XL Corn

Nine 1965 Entrants Top 200 Bushels per Acre* on "Measured Acreages"

The DeKalb 200-Bushel Club had its greatest number of goal-busters—nine—in a 1965 season in which the national corn yield average jumped to 72.1 bushels per acre. These members had twelve yield entries above the 200-bushel mark; all were made with DeKalb XL Varieties. Most of the group planted early; all but one used herbicides for weed control, all but one used insecticides, and all but two used narrow rows.

Read what these 200-Bushel Winners have to say:

Tom Brigham, Shelby, Nebraska: "XL-45 tassels earlier; yield is outstanding. Ideal for narrow rows."

Gary Pylman, Clarksburg, California: "XL-361 works fine with XL-45 and XL-362 to spread the harvest."

Kerrick Helton, Brocton, Illinois: notes this about XL-45: "Yield, standability, ear height, fertilizer response and blight resistance."

Of XL-362, **Harvey Pylman, Clarksburg, California,** says, "Harvested clean without field loss, and gave us top yields."

**All yields were mechanically harvested from carefully measured acreages, without gleaning, calculated from elevator weights on the basis of No. 2 corn.*

Clyde Hight, Moweaqua, Illinois: "XL-45 and XL-346 seem to perform best at our higher populations."

Says **Edwin Hastings, Berlin, Maryland,** of XL-45: "It's short, and all stalks had ears. It was picked early, with low moisture."

Wm. C. Kreoger, Burlington, Colorado: "XL-361 is the corn for 30" rows. Harvests good with a combine."

Californian **Warren Bogle, Clarksburg:** "XL-45 responded best of 12 varieties to my close row, high-population program."

200-Bushel Yields and Practices which Produced Them

Name	Town	State	Yield	Planting Rate	Row Width	Fertilizer N-P-K	DeKalb Variety
Clyde Hight	Moweaqua	Ill.	232.99	28,000	20"	185-140-200	XL-4
Clyde Hight	Moweaqua	Ill.	228.48	25,000	20"	185-140-200	XL-3 6
Hastings Bros.	Berlin	Md.	207.90	21,600	38"	200-165-165	XL-4
Gary Pylman	Clarksburg	Calif.	209.04	23,000	32"	262-42-42	XL-3 1
Walter J. Stephan	Huntington	Ind.	207.60	27,800	36½"	192-198-132	XL-4
Warren Bogle	Clarksburg	Calif.	218.83	26,200	30"	339-50-208	XL-4
Wm. C. Kreoger	Burlington	Colo.	201.40	23,300	30"	185-120-15	XL-3 1
Helton & Son	Brocton	Ill.	206.96	30,900	34"	127-81-27	XL-4
Harvey Pylman & Sons	Clarksburg	Calif.	214.28	24,300	38"	262-42-42	XL-3 2
Tom Brigham	Shelby	Nebr.	207.01	21,500	30"	150-0-0	XL-4



VICTORIOUS—"V" signs indicate the corn yield successes of these DeKalb 200-Bushel Club members. From the left, back row: Tom Brigham, Walter Stephan, Edwin Hastings, Clyde Hight. Front row: Gary Pylman, Kerrick Helton, Wm. Kreoger and Warren Bogle.



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SX-5 Early. Grows rapidly in cooler areas. Produces sweet stalks; abundant, fine leaves.
SX-11 The first Sorghum Sudangrass Hybrid. Rapid growth and regrowth; drought tolerance.
SX-12 Sweeter, leafier. Full-season. Has bred in resistance to leaf diseases. Big yields.



PASTURE

Sudax Brand Hybrids can provide quality grazing, and carry more livestock per acre. Row planting and rotation grazing are recommended.



GREEN CHOP

Can provide several cuttings of succulent, nutritious green-chop in a favorable season. Sudax Brand produces very high tonnages of palatable feed.



HAY-HAYLAGE

Sudax Brand can out-produce alfalfa for hay or low-moisture haylage. Should be planted thick, cut often (waist-high), and crimped.



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Has the quick growth to shade and help control weeds. Provides lots of green manure, which is easily turned under by plowing.

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2 inches or more a day

Vigorous DeKalb Sudax Brand Hybrids grow rapidly, and show amazing regrowth. They form from 3 to 10 tillers per plant after the first cutting, and, if fertilized, will normally produce even higher yields and more tillers on the third growth. Photo at right shows an SX-11 plant several days after the first cutting. Note the several leafy, tender stems, where just one grew originally. Sudax Brand Hybrids can grow 2 inches or more per day under favorable conditions.

Sudax Brand Hybrids show exceptional drought tolerance. Many growers have reported good forage yields, even when other crops failed.

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DEKALB FORAGE SORGHUMS

High Energy Feeder Specials

FS-15 NEW High yielding FS-1a type; medium height and maturity. Good standability. Results from 1965 DeKalb trials, Sutton, Neb.

Variety	Bloom Date	Height	Green Wt./Acre
FS-15	78	79"	32.04 tons
Atlas	84	91"	24.58 tons

FS-1a Large full heads of grain on DeKalb FS-1a produce high grain to stalk silage, very high in nutrient value. FS-1a is an early maturing, hegari-type forage sorghum. For high energy silage, plant DeKalb FS-1a.

Phil Chaffee (left) shows regional poultry Extension agent George Earl cages in which day-old chicks will be placed.



by Gordon Conklin

REARING CHICKS ON WIRE

THE DAY has come when poultry never see a conventional floor... even as day-old chicks. Phil Chaffee of VanEtten, New York, is one of the poultrymen blazing trails in the practice of rearing birds in cages... then transferring them to cages in the laying house. He has just built a new clear-span rearing house measuring 32 x 188 feet, containing 16 rows of cages, each row 164 feet long. Cage rows are in groups of four each... two upper and two lower. He can rear 13,120 birds at a batch.

Chicks are placed in the 20 x 24-inch cages when day-old, and newspapers (two sheets thick) placed on the bottom of the cage form a temporary floor until birds are ten days to two weeks old, at which time any remaining newspaper is removed. Small cardboard feeders with multiple opening along two sides are also placed in the cages for the first few days.

At The Trough

It doesn't take long, though, for the little rascals to find the feed trough fastened to the outside of the cages... and move through openings in cage wire sidewalls into the trough. To prevent them from falling out, troughs are "fenced in" with sloping wire covers.

A mechanized feed cart, as it moves along aisles between cage rows, puts mash into these troughs. As they get older, of course, they can reach into the trough without actually getting into it; by then they are too big to slide through the wire openings anyway.

The cages are modified stair step... meaning that lower rows are directly underneath upper ones. In a rearing house, it's necessary to reach all the way into the back of cages periodically; with a full stair-step arrangement it would be impossible to do this in the upper row without a ladder. Each cage

has a hinged wire door measuring about 8 x 7.5 inches.

Only the top cages are used at first, with 20 chicks per cage. At four weeks of age, 10 are put into the cage below and 10 left in the upper cage... an arrangement continuing until they are moved to the laying house at 22 weeks of age.

Water is available at both front corners of each cage; each waterer looks like a tiny plastic version of the watering cups so common in stanchion dairy barns. Floors of cages are flat... birds would tend to crowd toward high side if sloped.

Manure Pits

Pits under each row of cages measure 11 inches deep and 55 inches wide. Water is added to these pits; manure is cleaned out by the use of a small tractor (7 H.P.) that pushes a scraper down two pits at a time. Manure slurry goes into cross conveyor channel and then to storage tank, eventually to be pumped into spreader and spread on cornfields. Plan is to clean out after each flock of birds has been moved out.

Inside and outside walls of the rearing house are 3/8-inch plywood of C-D grade, laminated with exterior glue. Fiber glass insulation in both ceiling and sidewalls has an "R" factor of 13. Two oil furnaces provide forced hot air heat... either one can carry the job alone, and provides a back-up in case of trouble with one of them.

Phil figures an auxiliary generator, powered by a tractor, is a good investment too. On June 9, 1966, power was out (because of a severe storm) from 7:15 p.m. to 4:30 a.m., and Phil was mighty glad he had a generator to which he could hitch the pto of his tractor and keep the fans in his 22,000-bird laying house moving!

The next most important need of electric power, after ventilation

fans, is for lights. This rearing house is windowless, as are many modern poultry houses... but it goes even further by being "light tight." Ventilation intakes along the eaves, air exhausts, doors... all are baffled so that no light can get in to stimulate the development of growing birds.

Phil hopes he can use light intensity to prevent cannibalism, and thereby avoid having to debeak. There are 5 rows of 15 watt bulbs, each light 12 feet apart in the row. For the first 8 weeks the length of time lights are on doesn't seem to matter, but sexual development begins about then, and day-length becomes important. So, at 8 weeks Phil goes to a constant-length period of light... somewhere between 8 and 10 hours of light per day... and continues it for the rest of the rearing period.

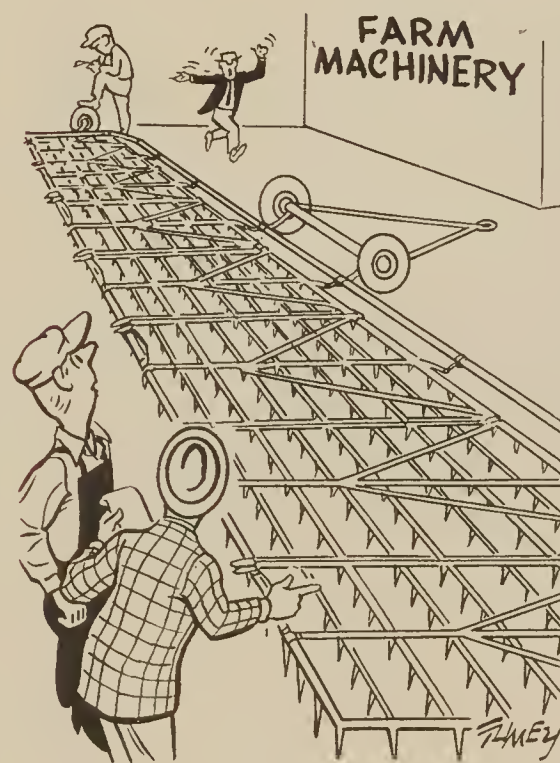
Advantages

What are the possible advantages of rearing on wire? First off, coccidiosis becomes a thing of the past, as does chick pile-up. Secondly, the rearing area is reduced... it would require 20,000 square feet for floor rearing the birds that will be handled here in 6,000 square feet.

The "light-tight" feature, Phil believes, helps insure that all the birds will consume a uniform amount of feed. Further it offers the opportunity to retard development by light control rather than through feed deprivation... research indicates "light controlled" birds average a dozen eggs more per laying year than those whose development "throttle" has been set back with an empty feed trough.

The hoped-for payoff is a saving of 50 cents per bird in rearing costs. Budgetary analysis indicates a cost of \$1.30 per bird (without labor charges). If this figure can be attained, Phil and his family can make good wages rearing their own replacement birds.

One final word... now that birds are in the building, Phil won't allow visitors inside. This is a good preventive measure against the spread of poultry disease. But he's provided a big window in the inside door where visitors can observe birds when the lights are on. "A year from now," Phil says, "we'll know better ourselves how to rear pullets on wire."



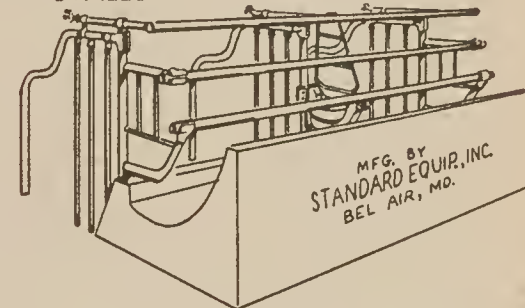
"Hold it, Mac! I've just sold it down at this end."

STANDARD

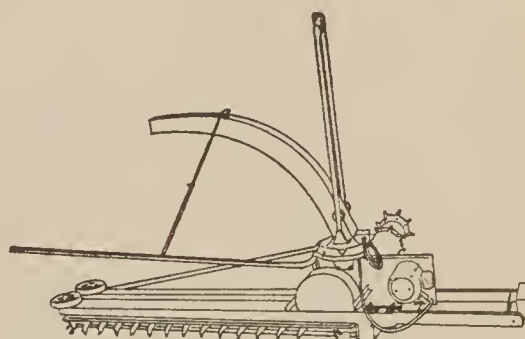
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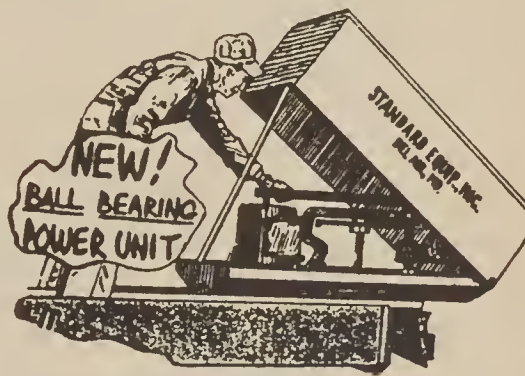
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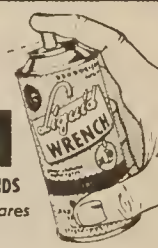
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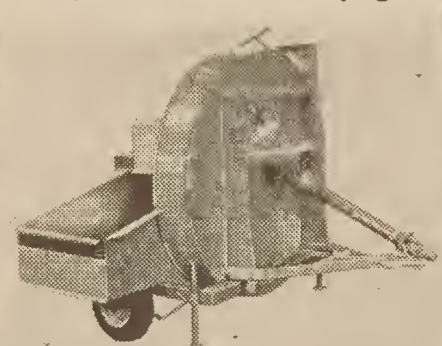
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TWO KILLERS: HCN AND NO₃

FARMERS who grow sudan-grass or sudangrass-sorghum hybrids should be alert for the twin perils of prussic acid (HCN) and nitrate (NO₃) poisoning. Dry weather for a number of years in some parts of the Northeast has caused farmers to plant larger acreages of these crops than in previous years.

Toxicity problems from prussic acid have been rare because sudan-grass of the Piper variety has been most widely used previously. Piper was developed at Wisconsin especially for its low toxicity. Unfortunately, the sudan-sorghum hybrids (Sudax and Sweet Sioux, for examples) contain several times as much prussic acid as does Piper... but even so present no problem to an alert dairyman.

Released

Prussic acid, sometimes called hydrocyanic acid, is released when plant cells are macerated as in chopping, chewing, wilting, freezing etc. Young growth contains a higher level than older growth.

Never graze or greenchop Piper sudan until it is 18 inches tall; the same rule applies to Trudan. Sudax, Sweet Sioux and other hybrids must reach a height of 24 to 30 inches to be reasonably safe to feed. If in doubt about prussic acid, you can safely make hay or silage from crops. Prussic acid is released as a gas in the drying of hay or fermentation of silage. In fact, even a frosted crop is safe to feed after plants dry out.

It's a good idea not to turn hungry animals into a field of sorghum hybrid or sudangrass... feed them some hay or silage first. Don't chop prussic acid crops and let them stand in the wagon overnight before feeding; chop each load as needed and feed as soon as possible.

Nitrate

Nitrate poisoning is a different problem; it's caused by an accumulation of excess nitrate in plants over and above the needs for growth. Nitrate is easily absorbed through plant roots, but lack of sunshine, especially cold or hot weather and drought, may prevent it from being converted into protein in plant tissues.

Oats, sudan hybrids, sudan-grass, corn, and orchardgrass are the most common crops to cause trouble. Young succulent plants are more apt to be toxic than mature plants.

Two Problems

Nitrate poisoning has two implications... death or sickness of animals that consume excessive amounts, and a real hazard to humans who breathe nitrogen oxide fumes in silos.

It's safest not to ensile or feed as greenchop any drought-stricken crop within 5 days after it gets a good rain. Furthermore, ventilate

silos and run the blower a few minutes before going into them during filling time in the fall. Three weeks of "digestion" in the silo will remove any possible nitrate or prussic acid poisoning possibilities.

Farmers needn't be biting their fingernails over either prussic acid or nitrate poisoning... instances of either are very rare. But the possibility is there, and the rules for avoiding trouble are simple and inexpensive. In this case, as in so many others, the best advice is, "Don't panic... plan."

Mettler

(Continued from page 13)

drinks too much. Watch for extremes. If a horse is thirsty, give only five to eight swallows at a time, walk for three minutes, then repeat.

I have been told that a horse jumps better on a nearly empty stomach. This seems logical. You wouldn't feel like running the hurdles after a big milkshake or a couple of hamburgers!

When you have finished showing, walk and cool out your horse, with a blanket or "sheet" on him unless it is very hot. Give him five to eight swallows of water at a time, and don't feed anything but hay until the horse is really cooled out.

Founder (laminitis) and colic (indigestion) are the most usual results of too quick a feeding or watering, and inadequate cooling out. Both are serious, and can lead to permanent lameness in the case of founder, and a fatal twisted intestine in the case of colic if not properly cared for. Never mind all the "home cures" well-meaning friends tell you about. If your horse is sick, get a veterinarian... and get him as soon as possible.

A foundered horse won't move, he stands like a saw horse and shows evidence of pain. Get his feet into cold water (wrap with feed bags and soak with cold water) and call for a veterinarian. A colicky horse can't stand still; he is up and down, kicking at his belly and wanting to roll. Keep him walking and on his feet until the veterinarian gets to him.

When you get home from a show repeat the inspection for wounds and walk your horse again. Keep him inside in a well-bedded stall the first night, so you can watch for colic, etc. Before turning him out the next day check his feet for stones and foreign objects.

Horse shows are great fun for the exhibitors, the spectators, the horses, and the organizations sponsoring them. Don't let a little carelessness spoil your fun by having a good horse contact illness or injury. You will find veterinarians here in the Northeast more and more aware of horse problems, and more help to you than in years gone by. Good luck!



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American Agriculturist, August, 1966



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Your Editor, Gordon Conklin, meets the Vice-President.

PUBLISHER'S CORNER

by Jim Hall

Not all members of American Agricultural Editors Association agree with the politics of the Johnson-Humphrey administration, but most of those who met Vice-President Hubert H. Humphrey in Washington a month ago did agree whole-heartedly with a statement he said expressed the policy of the Administration: "to offer self-help to get people to stand on their own feet."

Elsewhere in his 17-page speech to the ag editors, Mr. Humphrey buttered them up a little by saying: "In no other country are farmers as well informed as in the United States, and major credit for this should be assigned to farm publications — to the editors and their reporters."

The "Veep" also commended publishers for their cooperation with the USDA in a "farm papers for peace" program, in which copies of well-known farm magazines (including your AA-RNY) will be made available to emerging nations so that they too will have available up-to-date information on what's going on on America's farms.

Your Editor, Gordon Conklin, whose photo with the Vice-President appears above, who was your "ears" at the four-day Editors' meeting, also heard at least one Republican version of the Administration's policy. Paul Findley, GOP member of the Committee on Agriculture, called the current use of commodity reserves, "carrot and stick techniques." He explained that the lure of direct government payments is the carrot; and the stick, the threat to keep market prices down by government dumping. He said, "Selective price fixing through government dumping impels Farmer Brown to sign up for treasury checks."

When I started work for A.A. about 20 years ago, I spent at least three weeks a month visiting farmers all across the Northeast. Prices were not so hot then, but

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returning veterans started producing babies by the millions and farmers were being assured by the economists and others that they'd have a hard time meeting the demands for food. I'll never forget what one Northern Pennsylvania farmer told me about that: "I wonder if those birds advising us to 'hang on, prices will be good in 20 years' ever tried tightening their belts for 20 years?"

Many have given up farming in these 20 years and got good-to-excellent jobs in booming industry. They seem satisfied with their 40-hour week and fringes, and that's a good thing. The farmer "drop-outs" sold their land to neighbors who elected to hang on, and now the fellow who tightened his belt for 20 years is able to let it out a notch or two! (I know one dairyman with a medium-size herd who has color TV's in his kitchen and bedroom!)

The 20 years have passed. Those babies are marrying and producing more babies. Despite what Mr. Findley said about the "stick and carrot" technique of the past several decades, the surplus farm commodities have about disappeared. The stick the politicians had has the strength of a straw now that most market prices top the supports and there is so little to dump.

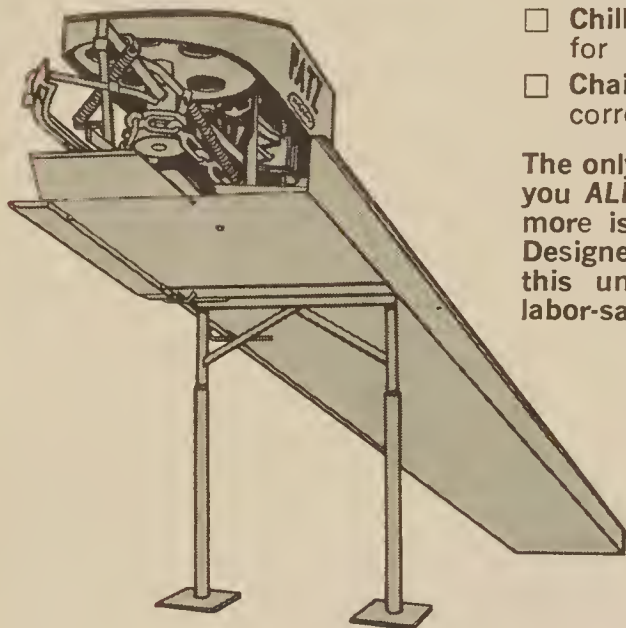
New York farmers' labor income is still under industry's, but last year took the biggest jump in history. Last year, the increase in tractors purchased was highest in the New England States, and for the first 6 months of this year they are still higher. Our great market is bigger than ever and Northeast farm income per acre keeps going up and up.

I'm beginning to dream that future generations will look back on the Soaring Sixties as the period when the law of supply and demand was rediscovered; and as the period when farmers finally achieved net income on a par with the rest of the economy.

CHECKLIST for buying a barn cleaner

If you're now looking for a barn cleaner, be sure it has all these important features:

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- ☐ Angled flites for added efficiency
- ☐ Wear shoe on each flite a full half-inch thick for longer flite life
- ☐ Flites welded to links — fewer parts to corrode
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- ☐ Flanged corner wheel to guide chain and protect gutter floor
- ☐ 4 Tooth drive sprocket reduces strain on reducer
- ☐ Sprocket and roller chain reducer for complete dependability
- ☐ Flite cleaner engineered to serve right and last long
- ☐ Automatic chain tightener works with full or part load
- ☐ Continuous duty motor eliminates motor overheating
- ☐ Telescoping slide legs for easy slide adjustment
- ☐ Chilled cast hold down shoe for longer shoe life
- ☐ Chain oiler for lubrication and corrosion resistance



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Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.





Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name Preparation H®. At all drug counters.

What Is A "Strong" Wind?

Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accom- panied by widespread damage.	

Whatever the wind, do "blow in" to your supplier for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

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Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oneida	WMCR	1600 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.
Niagara Falls	WHLD	1270 kc.			

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ICED STRAWBERRIES

by Amos Kirby
New Jersey Editor

John R. Bertino and Son saved their 25 acres of strawberries from freezing this year by burying them under ice.

On May 11 temperatures were going far below freezing. The berries were in full bloom... and 25 degree temperatures would mean their finish. At 12:30 a.m. the Bertino father and son team started the irrigation pumps. By daylight the field was covered with about one-half inch of ice and all of the blossoms were protected... the temperatures went down to 23 to 25 degrees.

The pumps were kept in operation until 8:30, when the ice had melted. Under the sun and moderating temperatures the foliage came back in shape, and the bloom was saved.

In 1965, a similar plot of 25 acres produced about 200,000 quarts, or an average of 8,000 quarts per acre. Harvesting was just starting when I visited the farm, and the Bertinos expected almost as good a crop as in the previous year.

A BERRY PATCH?

If you are planning a new strawberry plot or expanding an old one, there are some new varieties to choose from.

The three leading varieties are Dixieland, Midland, and Jerseybelle. The Jerseybelle now makes up 60 percent of the New Jersey acreage. It's a big, showy berry, a good shipper, and brings top money.

For North Jersey, New York and New England, the Vesper, a close relative of the Jerseybelle, has a great future. In South Jersey it's a good roadside berry, but not adapted to shipping. Coming soon will be No. 357. This is a berry with size, color, a good cropper, and, what is more, a fragrance that has few equals. And for taste... regardless of the price tag the berries are sold!

HIGH EFFICIENCY

Looking for a high efficiency dairy farm? Then see John Hub-schmidt, Cumberland County. Here is a young dairy farmer who is getting high yields from limited acres and high milk yields from his herd.

On his 93 acres of tillable land he maintains a herd of 45 milking cows, and has an average annual milk production record of 16,290 pounds of milk and 607 pounds of fat. And he has done better... in 1963 his herd of 47 registered Holsteins established a State record of 18,330 pounds and 680 pounds of fat!

John feeds no silage. He cannot

see the cost of building one... there are other things that seem more important. His basic feed consists of hay, wet brewers grain, and greenchop. He grows no corn. His major crops are alfalfa, timothy, barley, oats, and sudan grass.

Barley hay may be something new to many; this year John averaged 2-3/4 to 3 tons of hay per acre with a 9 percent protein. The hay was baled about May 7, and cows go for it as if it was a delicacy.

This year he put up 1,000 bales of rye hay and found no decline in milk production. A combination of sudan-sorghum provides greenchop for the herd. There are only 16 to 17 acres in permanent pasture. All the rest of the land is in hay and greenchop crops.

John started his herd by buying calves from top herds with high production records, and this practice is still being continued with only one exception... he selects from his own good producers. Backing up the 45-cow herd is another herd of nearly as many heifers that are maintained on another farm, just in case he needs some support to maintain this milk production record.

SPRAYING ALFALFA

William Cadwallader, Salem County dairyman, finds that airplane dusting of alfalfa has advantages over ground spraying. For one thing, it saves labor on a worker-short farm.

A big saving was in larger yields. Airplane wheels don't touch alfalfa like those of a tractor-drawn sprayer!

VENTILATION PAYS

Air movement in poultry houses in August is a "must," says poultry specialist John Bezpa. He is suggesting that the air be kept moving for two basic reasons:

When the temperature gets up to 80 degrees chickens suffer from the heat. A second reason for good ventilation is to carry off ammonia fumes.

John has a handy yardstick to detect the amount of ammonia in the air. If one can detect ammonia fumes, there are probably 10 ppm in the air; if the fumes irritate the eyes, there are probably 25 to 30 ppm, and when it reaches 50 ppm, one wants to get out of the house.

If ammonia fumes are noticeable to humans, what about the layers that must stay and take it? When it goes over 50 ppm the poultryman is heading for problems.

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News and Views from NEW YORK AND PENNSYLVANIA



Officers of the Pennsylvania Poultry Federation for 1966-67. Left to right: president William R. Myer, Myerstown; secretary Edwin B. Wallis, Jr., Liverpool; treasurer Lawrence E. Kegerreis, Palmyra, with immediate past president Charles R. Phillips, Pillow. Missing from the picture are first vice president Walter Wheelock, Chambersburg, and second vice president Donald E. Horn, York.

Quintuplets — Lambs, that is, born on the farm of Mr. and Mrs. Charles Lynch, Blueberry Hill, Poughquag. The parents are registered Suffolks, and the lambs (two ewes and three rams) are doing fine. Quintuplets occur only once in approximately 41 million births.

CORRECTION!

Mrs. Inez G. Gridley, Grahamsville, New York, tells us that the correct date for the Sullivan County Youth Fair is August 19, followed on the 20th by the Grahamsville Fair.

New Dairy Mill — The H. K. Webster Company of Lawrence, Massachusetts, has announced plans to construct a new Satellite-type mill in Chatham, New York. The plant will be designed solely for the manufacture of dairy feed, and it is expected that the mill will be ready for operation January, 1967.

New Rules — New rules and regulations applying to Pennsylvania's rapidly-growing use of liquid eggs and egg products have been adopted by the State Department of Agriculture. The rules set new standards of sanitation for plants where eggs are broken out of their shells, packed in bulk and frozen, and went into effect July 1.

Heads Engineers — Professor Orval C. French, head of the Department of Agricultural Engineering at the New York State College of Agriculture, has been installed as head of the 6,500-member American Society of Agricultural Engineering for a one-year term. He is the second man from Cornell to head the national organization since its founding in 1907. Professor Emeritus H. W. Riley served as president in 1912.



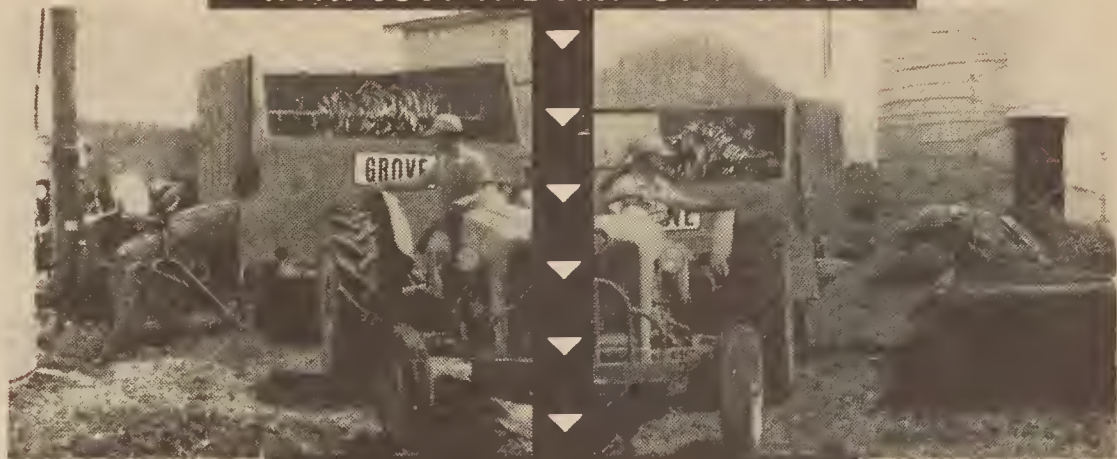
Orval C. French

Professor French has been a member of the ASAE since 1932, and was elected a fellow of the Society in 1964. With membership not only in the United States but in more than 90 foreign countries, the Society aims at improving agriculture through the application of engineering principles.

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Sparky says:



**Keep Matches Away
from Young Children**



Don't give fire a place to start!

The Parthenon on the Acropolis at Athens was built nearly 500 years before the birth of Christ.



LAST TOURS FOR 1966!

Although there are five months left in 1966, here at American Agriculturist it seems as if the year is almost over! Aside from our British Isles Holiday which has been sold out for many weeks, we have just two tours left—our Hawaiian Aloha Week Tour, October 7-23, and the Mediterranean-Holy Land Holiday from September 27 to October 19.

Both of these trips are by air and will be directed by Travel Service Bureau of Needham, Mass., the folks who do such a wonderful job of organizing and conducting our tours. Why not decide right now to take one of these marvelous vacations... we guarantee you'll enjoy every minute.

Mediterranean Holiday

First we visit Rome where we'll see the Pantheon, St. Peter's Square and Basilica, ruins of the Roman Forum, the Colosseum, Appian Way, and other fascinating places.

Next comes Istanbul and the Basilica of St. Sophia, the famous Blue Mosque, and an unforgettable visit to the Old Seraglio to see the thrones and jewels of the Ottoman Sultans.

Ancient Beirut is now an air crossroads of the world! On a side trip we will see the Cedars of Lebanon, a grove known to be more than 2000 years old.

A short flight takes us to Egypt and our hotel on the fabled Nile. Here we will see fascinating places we've heard about so often—the Pyramids, Sphinx, famed Archeological Museum in Cairo, and Tomb of Tut Ankh Amon in ancient Luxor. We'll even have an opportunity to go for a camel ride!

We'll spend five days in the Holy Land and Israel visiting the places we've learned to love from just reading about them. Included will be Mount Calvary, the Mount of Olives, Pilate's Judgment Hall, Garden of Gethsemane, Church of the Nativity, Mary and Martha's home, the modern city of Tel Aviv, and many others.

Greece is the last country we will visit and a wonderful climax to our vacation. We'll spend two days in Athens and take a trip through southern Greece which

includes the Peloponnesus, Olympia, and Delphi.

Aloha Week in Hawaii

Our fall Hawaiian Tour has been planned so we can visit the four best known islands and be in Waikiki for the colorful Aloha Week celebrations. On the large island of Hawaii, we'll see an orchid nursery, Hawaii National Park, Akaka Falls, the Parker Ranch, Kona, and many other beautiful and interesting places.

On the Valley Isle of Maui, we'll visit Haleakala Crater, The Needle, and Lahaina, former capital city of the Islands. On Kauai, the Garden Isle, we'll take excursions on the Wailua River and to Waimea Canyon.

Sightseeing on popular Oahu will include a full day's trip around the island, a pineapple plantation and the Dole Processing Plant, Schofield Barracks, and a cruise through Pearl Harbor.

Fill out and mail the coupon today, and we'll be happy to send you the illustrated, day-by-day itineraries giving complete information about both trips. You can't go wrong whichever one you choose!

Plan For 1967

Next month we hope to have enough information to tell you all about our first tour for 1967. So you can start dreaming and planning, we'll give you a hint—we will be going to South America, by air down the east coast and up the west coast as far as Lima, then by ship through the Panama Canal and back to New York. Begin making your plans to come with us!

Gordon Conklin, Editor
American Agriculturist
Box 370-T
Ithaca, New York 14851

Please send me, without obligation on my part, the following tour itineraries:

Mediterranean Tour _____

Hawaiian Holiday _____

Name _____

Address _____

(Please print)

Food For The Spirit



by Robert Clingan

LEARNING FROM LIFE'S INTERRUPTIONS

Dr. Ralph Sockman tells of Samuel F. B. Morse overhearing a conversation on an ocean liner that led to his development of the telegraph. He heard a person describe how electrical current could be transmitted the length of a metal line, instantaneously. Some day, said Samuel Morse, intelligence will be transmitted by the interruption of that current; in his mind at that time the principle of telegraphy was born.

Intelligence, and especially spiritual insight is so often transmitted by life's interruptions.

A number of years ago, a mother related to me how she had obtained an entirely new perspective on life from the horizontal position of an upstairs sickbed. She had experienced one of life's interruptions. As she gave orders to her children that she was unable to enforce (and found enforcement unnecessary) she came to appreciate their sense of responsibility. Did they learn this from the interruption, or did this interruption call forth the sense of loyalty, affection, and responsibility that were there all the time?

The noise of meals being prepared, jobs and chores reassigned, and the balancing of ideas that went on... all these sounds came floating up the bedroom stairs. The full play of each personality became operative; the natural role for each of the three children without the close supervision of their mother became evident. She understood her children better because of one of life's interruptions.

The third cluster of insights came as she discovered that there were many things in life not worth fretting over. Some things she had always thought had to be done immediately she now discovered could wait. The patience she had lacked became a trait of character she had to develop. One of life's interruptions said: "Be patient, have courage and faith."

Her experience and the theme we are pursuing suggests the classic example of Florence Nightingale. When she returned from her experience in nursing during the Crimean war, a doctor ordered her to bed, and she spent the rest of her life as an invalid. In her long-lasting interruption, she placed tremendous pressure on the governments of the world to raise the standards of nursing to make it a respected profession. Life's interruptions gave her the time and the opportunity to crusade for the things in which she deeply believed.

Life's interruptions are of many kinds and for many reasons. The important thing is not how or why they occur, but what we can learn from them, and what useful purposes they can serve.

American Agriculturist, August, 1966

Livestock Mart



ANGUS

WYE PLANTATION FROZEN Angus Semen is available from P.R.I. proven sires officially gaining 4 pounds and more per day or whose 365 day weights are 1200 pounds and over. Wye Plantation, Queenstown, Maryland 21658. Telephones: 301-827-2041; 301-827-8143.

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BABY CHICK BARGAINS: Rocks, Reds, Crosses, Heavy Assorted. Also Ducklings, Goslings, Turkey Poults. Free Catalog. Surplus Chick Co., Milesburg 4, Pa.

MEADOW VIEW CHICKS — Shaver Leghorns, Rapp Leghorns, Shaver Sex-links, Harco Sex-links, Lawton Buffs, Cornish Cross meat birds. Also started pullets, Henry M. Fryer, Greenwich, N. Y. 12834. Phone 518-692-7104.

BIG WHITE LEGHORNS, Brown Leghorns, Anconas, Black Minorcas, Austra Whites, Barred & White Rocks, New Hamps, Orpingtons, Australorps, Brahmas; 38 breeds. Ducklings, Turkey Poults, Goslings, Bantams. Free Catalog. Mt. Healthy Hatcheries, Mt. Healthy, Ohio.

HI-PRODUCTION LAYERS, White Leghorn pullets \$26.50 per 100, R.I. Red pullets and Buff Sex Link pullets \$26.00—100. Broad-breasted Cornish Broiler Cross \$10. 100% guaranteed. Free catalog. Noll Farms, Kleinfeltersville, Penna.

ROCKS, REDS, CORNISH \$3.89—100. Large White Rocks \$5.45. Other breeds \$1.45 to \$5.45. Pullets \$9.99. Before you buy, compare our prices. Guaranteed savings. Customers choice of breeds shown in terrific big free catalog. Shipment from hatchery your section. Atlas Chicks, Home Office 2651 Chouteau, St. Louis, Mo. 63103.

PROFIT POWERED Finest Strain Cross White Leghorns, Harco Reds, Lawton Buffs, Pullets, 30¢ each. Extra heavy breeds: Vantress, White Mountain, Silver Cross, straight run. 10¢ each. Prepaid insured delivery. Circular. Strickler Farms, Sheridan 3, Pa.

BARRED ROCKS or Reds \$4.10. White Rocks, \$5.95. Heavy breeds, as hatched \$7.85. Heavy pullets \$13.95. Leghorn pullets, \$15.95 and up. Free catalog. National Chicks, 8248 Temple Rd., Philadelphia, Pa.

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SHETLAND SHEEPDOGS. Small, sturdy! Herd dog and companion. D. McLaud, Berkshire, N.Y.

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AKC AIREDALE, WEIMARANER, Wire Fox Terrier, Min. Schnauzer Puppies. Tourtellotte, Morris, N. Y.

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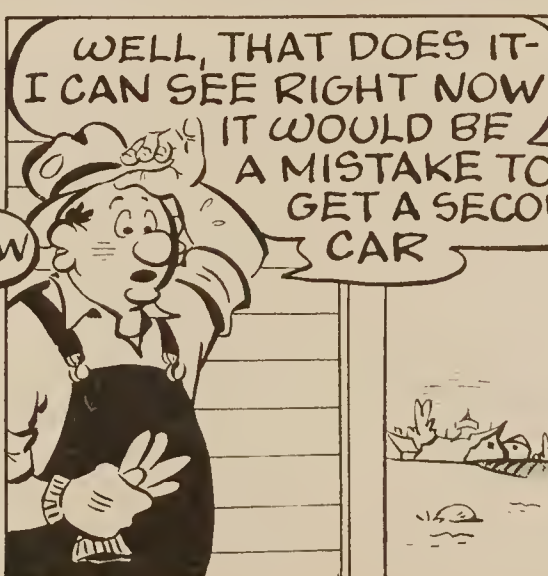
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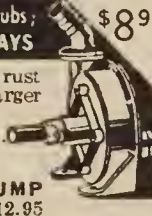
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LIVESTOCK



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Charolais — A new 20-page booklet outlining the production values of Charolais beef cattle in this country is available from offices of the American-International Charolais Association, 923 Lincoln Liberty Life Building, Houston, Texas, 77002.

"Charolais...for Progress in Beef Production" is heavily illustrated in both color and black and white photographs. History of the cattle in France, where they originated over 200 years ago, as well as their phenomenal growth in this country, are described in the booklet.

Sow Rations — Free-choice or bulky ration for sows...or concentrated ration in limited amounts? That was the question the scientists at the University of Wisconsin tried to decide. And the concentrated ration won out. It was found cheaper to maintain the sows when they were fed the concentrated ration in limited amounts...those on the bulky ration that included 60 percent alfalfa...and fed free-choice...consumed 60 percent more feed.

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This year Mrs. Hecht made her Easter hat and handbag from gourds which she grew.

MY HOBBY IS GOURDS!

by Fae Hecht*

HOW DOES one dry a gourd to the stage where the seeds rattle? Why do some gourds decay after being indoors a short while? Can gourds be grown north of the Mason-Dixon line?

These are the questions people are most likely to ask, whether they grow gourds themselves or purchase them at a roadside stand or from a city florist. My experience growing and decorating gourds for the past 18 years has helped me compile some "do's and don'ts" to share with all gourd hobbyists.

Gourds are warm-season plants, and frost in either spring or fall will destroy them. Plant gourd seeds as early as possible after all danger of frost is past and harvest the gourds before the first autumn frost.

Always popular in southern states, the gourd is now attracting northern gardeners as well. They have discovered that gourds will grow in cooler climates and that seeds may even be planted indoors, then transplanted when weather conditions are favorable.

Easy To Grow

Both species of gourds, the thick-skinned Ornamentals and the hard-shelled Lagenarias, are easy to grow. They require a well drained soil, sun, and some fertilizer. Too rich a soil will produce many vines with little fruit.

Plant 5 seeds to the hill, about 1 inch deep, and later thin to 3 plants. Hills should be 6 feet apart.

If space is limited, hills may be placed closer together and plants thinned out more. Different varieties have slightly different leaves. When thinning, try to leave plants with as many different leaves as possible in each hill. Water plants until they take root; then no watering is necessary unless there is drought.

In spacious gardens, gourds may be seen running on the ground in the manner of their cousins, the cucumber and melon. The gardener with limited space can use a trellis, made from wood, wire or cord. Some vines grow as long as 50 feet. Pruning insures a better crop, and more laterals (the fruit bearing branches) will appear if stem is cut off at about 10 feet.

Gourds are monoecious — both the male (staminate) and female (pistillate) flowers grow on the same vine. The gardener who plants just one gourd seed will harvest many gourds. It is not unusual to find two or three different kinds of gourds on the same vine. If a particular variety is wanted, seeds should be planted in another part of the garden, away from the other gourd beds.

Preventative measures can be used to avoid cucumber beetle and aphid damage. When plants reach 4 inches in height, dust with Rotenone, and repeat this procedure after each rainfall. Once flowers have formed on vines, however, all dusting must be discontinued. Bees are necessary for pollination, and they shun plants that have been dusted or sprayed.

The decay of many gourds can be traced to incorrect harvesting



or to the care given them immediately after harvest. With the approach of fall, pay particular attention to local weather reports. If frost is predicted, harvest all gourds that are rock-hard. Soft gourds will decay after being indoors a short while, so it is better to leave them on the vines and take a chance on the weather warming up again.

Gourds should be stored in a cool, airy, dry room, away from the sun. They may be hung up or placed on platters or trays with plenty of room for circulation of air. Attempts to shorten the drying period by various methods often result in decay. Gourds washed in a disinfectant after harvest do not necessarily last longer than those which have not been treated. The gardener takes his choice.

Some gourds dry out naturally, while others have mold formations during the drying process. Since the gourd is 90 percent water, this is nature's way of bringing the moisture to the surface. If gourd is still hard, scrape mold off; then watch for more mold and wipe dry each time any is found. Many "green thumbs" have discarded gourds in this state, thinking the mold was decay.

As water evaporates, gourd becomes lighter in weight and

color, and soon the rattle of seeds can be heard when gourd is shaken. This is called a "Maraca," the musical instrument used in Spanish bands.

The gourd is now ready for decoration. No decorating agent (wax, shellac, or paint) should be applied before gourd is dry. All of these tend to seal the pores, making it impossible for moisture to evaporate.

Since shape of the gourd suggests its use, decorating can be a lot of fun! Vases, bowls, toys, musical instruments, bird houses, lamps, and pin cushions are just a few of the things that have been fashioned from gourds — you'll find them proudly displayed in many homes across the country.

In the pictures you will see how I used gourds last spring for my Easter "Bonnet" and pocketbook. The hat was made from ten Luffa sponge gourds which were attached to a collapsible coolie hat. These gourds are beige, but can be tinted to match any outfit. The trimming, one white and one red rose on a red ribbon, was removed from a gift basket of fruit.

Hinges and a lock, red paint (inside), varnish (outside), and a cord handle transformed a Bushel gourd (Lagenarias) into an attractive handbag!

VISITING

with

Home Editor Augusta Chapman

WHEN THIS August issue arrives in your home, my husband and I hope to be vacationing in sunny Hawaii, along with the other members of our summer Hawaiian Tour group. Hawaii is probably the one place I've most wanted to see, and it still doesn't seem possible that we're actually to have two wonderful weeks visiting four of the Islands!

I'm glad, too, for this oppor-

tunity to see first-hand just how our tours operate, for one of the "extra" things I do at American Agriculturist is writing the travel stories. They should be glowing reports from now on!

Because of this trip, our travel trailer won't get much use this summer, and I'll sort of miss that too. We've had a world of fun and seen a lot of country at a minimum of expense by taking camping-traveling vacations.

Ten years or so ago, when we bought our first trailer, it was possible to find a place in almost any State Park or campsite. The only times they were really crowded were the Fourth of July and Labor Day weekends. Now family camp-

ing is BIG business, and you thank your lucky stars when you pull into the park you've been heading for and find they still have an open site!

If you hadn't realized just how many families are camping these days, try counting the small house trailers, the fold-up campers and those fastened to pick-up trucks, and the family cars loaded to the hilt with all sorts of tenting equipment that you'll see on any main highway, any July or August weekend. In fact, it's getting almost TOO BIG!

Camping seems to be something you either enjoy very much or want no part of whatsoever. . . there's no middle ground. Some

people think you're insane to give up the comforts and conveniences of a modern home and rough it outdoors. Of course, there are many degrees of "roughing it," and I'll admit I don't want it too rough, but I love camping.

I hope this summer your family takes whatever kind of a vacation you enjoy most. Don't say you can't find the time or that you have to wait until the children are older. Some of the most precious memories you'll ever have will be of the good times shared through the years on summer vacations.

The New Look

Have you noticed how window

(Continued on page 28)

American Agriculturist, August, 1966



August's BOUNTY OF VEGETABLES

by Alberta Shackelton

PLAN TO MAKE the most of garden vegetables during this period of abundance. You'll be surprised how many will be eaten when they're well prepared and cooking methods varied from time to time. Of course, almost any vegetable is good just seasoned and buttered, but think of what you can do with a little imagination and by combining two or more together. A number of vegetables take well to frying or baking, and cold cooked vegetables are good additions to salads.

Buttered Vegetables. These are the easiest to prepare by simply mixing lightly 1 to 2 tablespoons of butter with 1 cut well-drained cooked vegetable. Season to taste with or without small amounts of herbs and serve hot.

Melt butter ahead, if you wish, and add a bit of lemon juice for certain vegetables. For interest, top vegetables with sauteed sliced mushrooms, chopped pimientos, toasted blanched almond slivers, chopped chives, or a sprinkle of Parmesan cheese.

Creamed Vegetables. A smooth, well seasoned cream sauce is a cook's best friend and especially in vegetable cookery. Two cups of a medium white sauce will be just about the right amount for 2 cups of drained, cooked vegetables. Use 4 tablespoons butter, 4 tablespoons flour, 2 cups milk and desired seasonings.

For plain creamed vegetables, combine vegetable with cream sauce. For scalloped vegetables, put alternate layers of vegetable and cream sauce in a casserole and bake in moderate oven (350) until sauce bubbles. For au gratin vegetables, top casserole with grated cheese and buttered bread crumbs and bake as for scalloped potatoes.

Cream Sauce Variations. Add 1 chicken bouillon cube and reduce salt for each cup cream sauce. Add sauteed sliced mushrooms, pimiento bits, toasted almonds, chopped parsley or chives, or paprika to sauce. For mock hollandaise, combine 1 cup hot medium cream sauce with 2 egg yolks; add 2 tablespoons

butter and 2 tablespoons lemon juice and stir until blended.

Glazed (candied) Vegetables. Make a sirup of $\frac{1}{2}$ cup brown sugar, $\frac{1}{2}$ cup white sugar, $\frac{1}{2}$ cup water, and 1 tablespoon butter. Pour over cooked vegetables in a casserole and bake in moderate oven (350) until tender. Baste and turn as necessary.

Harvard or Orange Sauce. For Harvard sauce, melt 2 tablespoons butter and stir in 1 tablespoon cornstarch and $1\frac{1}{2}$ tablespoons sugar. Gradually stir in $\frac{1}{2}$ cup mild vinegar and stir until sauce boils.

For orange sauce, substitute orange juice for vinegar and reduce sugar. For a quick orange sauce, thin orange marmalade with a little hot water.

The Kitchen Bookshelf

How To Cook Vegetables, Cornell Extension Bulletin 883. Gives pointers for keeping nutritive value and for making vegetables look and taste good. 15 cents.

Fruit Spreads and Preserves, Cornell Extension Bulletin 1060. 5 cents.

Single copies of these bulletins free to New York State residents. Send request to: Mailing Room, Stone Hall, Ithaca, New York.

Making Pickles and Relishes at Home, HG-92. Covers ingredients, equipment, procedures, and recipes. Single copy free by sending request to: Office of Information, U. S. Department of Agriculture, Washington, D. C. 20250.

The following recipe for especially crisp and tasty sweet gherkins was developed by U.S.D.A. at its food laboratories in Beltsville, Md.

SWEET GHERKINS

- 7 quarts (about 5 lbs.) cucumbers
- $1\frac{1}{2}$ to 3 inches long
- $\frac{1}{2}$ cup pure granulated salt (not iodized)
- 8 cups sugar
- 6 cups vinegar
- 2 teaspoons celery seed
- 2 teaspoons whole mixed pickling spice
- 8 1-inch pieces stick cinnamon
- $\frac{1}{2}$ teaspoon fennel (optional)
- 2 teaspoons vanilla (optional)
- $\frac{3}{4}$ teaspoon turmeric

First day, morning. Wash cucumbers thoroughly and drain

(Continued on page 28)

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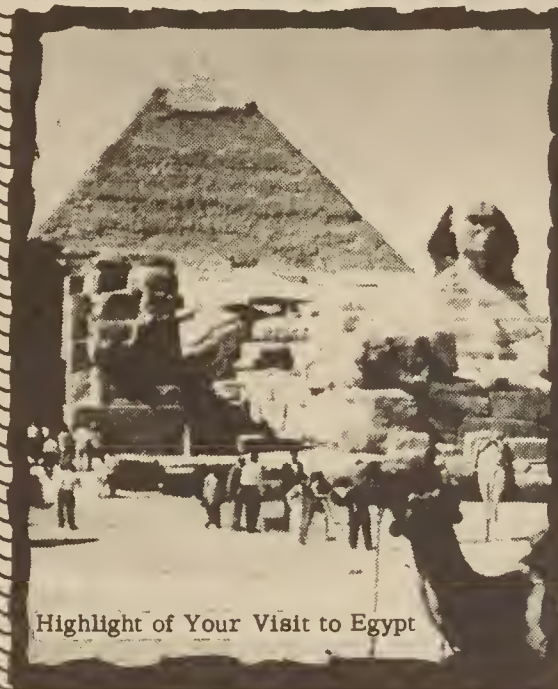
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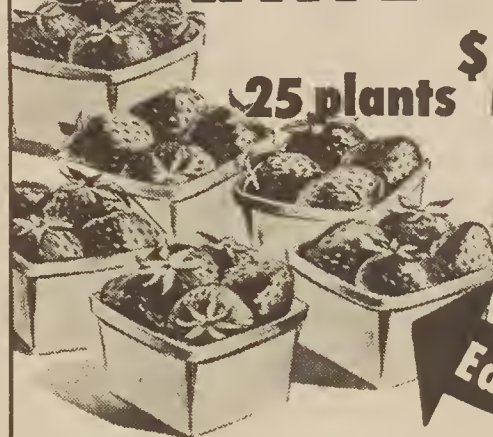
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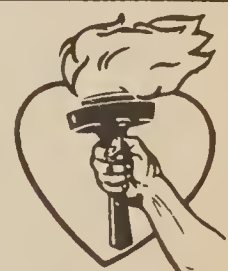
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What's Your Hobby?

Grows Ivy for Gifts

I grow Ivy as a hobby and find it most rewarding as a gift for friends who are ill.

This started several years ago when my old hanging plant grew to such size I had to do something with it. I began breaking off the ends and potting them in small attractive planters. Now I keep several on hand so I don't have to dash around to find something for a gift. — *Mrs. Helen Murch, R.D. 1, Winthrop, Maine.*

Pen Pals and Collections

Several years ago I corresponded with one of the hobby letter writers in American Agriculturist, and she told me about a Pen Pal Club. I joined this and now have pen pals in many lands.

Also, I had saved stamps and view cards automatically, not realizing how much fun it can be to make a real collection. Now, I also save postmarks from my pen pal letters. — *Mrs. Josie Orme, 20 Brenner Ave., Bethpage, L.I., New York.*

More Shakers

Collecting salt and pepper shakers is my hobby, and so far I have about 700 sets. I haven't found any from the northwestern states, however, such as Washington, Oregon, North and South Dakota. I would like to hear from someone in this area who also collects shakers. — *Mrs. Ward B. Downes, 214 Duane Ave., Schenectady 7, N.Y.*

Family History

My hobby is tracing my family genealogy. I have traced the Shutts family back to 1710 when my ancestors came to this country. They

landed in Germantown, N.Y. The first record of an actual ancestor is in 1728, which goes back many generations.

The name is spelled in many ways, one being Schutz. I would like very much to hear from other members or possible members of this family. — *Mrs. Helen S. Race, Centerhill Road, Hillsdale, N.Y.*

Something Different

Since 1901, I have been collecting pictures of couples married for 50 years or longer, also of people over 100 years of age, and pictures of twins. One reason for my interest is that my mother was a twin. I have more than 26,000 pictures in all. — *Ms. Harriet King Smith, R.D. 1, Randolph, Vermont.*

Visiting

(Continued from page 26)

shades have changed in the last few years? No longer are they drab affairs, used for regulating light but adding nothing to the looks of a room. New fabrics, patterns and colors in shades make window treatments an important part of the decorative scheme for every room in your home.

A booklet entitled "The Elegant World of Window Shades," beautifully illustrated in full color, tells the complete story of today's shades and offers a wealth of ideas that you can use. It is available for 50 cents by writing Breneman, Inc., Box 11136, Station V, Cincinnati, Ohio 45210.

Ripen Peaches At Home

Nowadays, peaches are picked before they're fully ripe. This makes shipping easier and reduces bruising, but it's harder to select peaches with real flavor. When buying peaches, the U. S. Depart-

ment of Agriculture suggests that you do three things:

1. Look first at the color. Not the "blush," but the background color. It should be yellow or creamy, and the fruit itself should be bright and fresh in appearance — firm, but not hard.

2. Buy the ripest unbruised peaches you can find. Then ripen them further at home at room temperature and off the window sill, for sun will cause shriveling and decay. As soon as peaches are tender to the touch, put them in the refrigerator.

3. Never buy green peaches. They shrivel and decay before they ripen, and they're usually tough, rubbery and flavorless.

New Career Pamphlets

"Well-paying executive positions in many fields can be filled by women who have the ability, education and training for them," says Deputy Commissioner Guin Hall of the New York State Commerce Department Woman's Program.

Five new pamphlets in the Woman's Program "Job Horizons Series" are now available. They are:

Educational/Vocational Counseling.
Career Opportunities for Women in New York State Government.
School Lunch as a Profession
Careers for Women in Banking.
Selecting a Career in Nursing.

Each is written by a woman who is an authority in her field; each gives the education and training required for that particular profession and where further information can be obtained.

Other booklets recently issued deal with careers in social welfare, law, travel, retailing, real estate, mental health, fashion, and architecture. All pamphlets are free by writing: Woman's Program, N. Y. State Dept. of Commerce, 112 State St., Albany, New York.

Supermarkets of the Future

Marketing experts of the U. S. Dept. of Agriculture predict that automatic ring-up and bagging will speed tomorrow's shoppers through the check out lines. Electronic brains will keep tab on inventories and order replacements before supplies run out.

Personal service by butchers, however, is on the way back. Trained meat clerks will be on hand to make suggestions on cooking methods and the best buys in meat. New handling methods, improved refrigeration, and better sanitation systems in markets of the future will keep meat fresh longer, and there will be less waste.



Refrain

by Lois O'Connor

Muffled
against the summer-scented night,
note of a cowbell,
an old song from the meadow.
Contentment
grows with the dusk.

Fall & Winter '66 Pattern Book



YOU'LL ENJOY this new edition of our '66 Fall and Winter pattern magazine

Basic *Fashion*

This issue specializes in styles for the larger figure. Also featured — a section on "Handling New Fabrics" and our successful Young Originals. Plus dozens of lovely styles from which to choose a whole new wardrobe of patterns for the coming season. The price — only 50 cents a copy!

To order, send 50 cents in coin to: American Agriculturist, Pattern Dept., 1150 Avenue of Americas, New York, N. Y. 10036.

Vegetables

(Continued from page 27)

(stem ends may be left on if desired). Place in large container and cover with boiling water. Afternoon (6 to 8 hours later). Drain and cover with fresh boiling water.

Second day, morning. Drain and cover with fresh boiling water. Afternoon. Drain. Add salt and cover with fresh boiling water.

Third day, morning. Drain and prick cucumbers in several places with a table fork. Make a sirup of 3 cups of the sugar and 3 cups of the vinegar; add turmeric and spices. Heat to boiling and pour over cucumbers, which will be partially covered at this point. Afternoon. Drain sirup into pan; add 2 cups of the sugar and 2 cups of the vinegar; heat to boiling and pour over pickles.

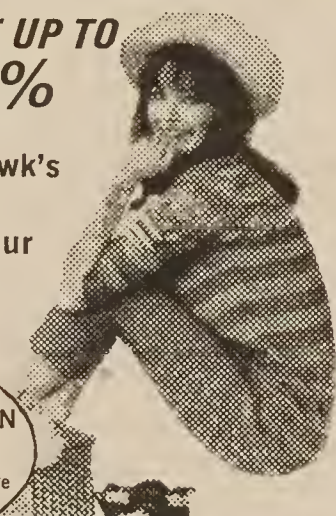
Fourth day, morning. Drain sirup into pan; add 2 cups of the sugar and 1 cup vinegar to sirup. Heat to boiling and pour over pickles. Afternoon. Drain sirup into pan; add remaining 1 cup sugar and vanilla to sirup; heat to boiling. Pack pickles into clean, hot pint jars and cover with boiling sirup to 1/2 inch of jar top. Adjust jar lids.

Process in boiling water for 5 minutes if you live at less than 1,000 feet above sea level. (Add 1 minute for every 1,000 feet higher.) Start to count processing time as soon as water returns to boiling. Remove jars and complete seal if necessary. Set jars upright, several inches apart, on a wire rack to cool. Makes 7 or 8 pints.

American Agriculturist, August, 1966

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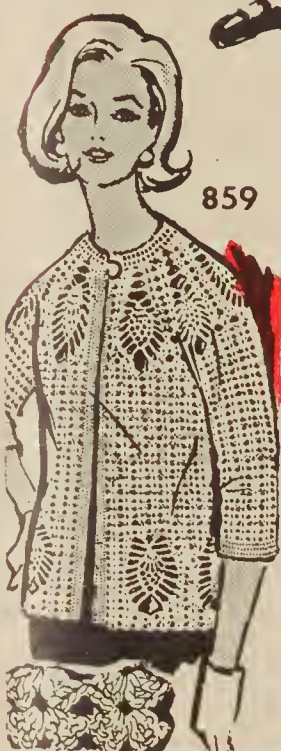
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10-18

9200
14½-26½



814



859



9486
S-10-12
M-14-16
L-18-20



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4535. Attractive dress and jacket. PRINTED PATTERN in Half Sizes 12½-24½. Size 16½ ensemble: 4-7/8 yards 39-inch fabric. 35 cents.

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New York State residents add 12¢ sales tax.



ED EASTMAN'S PAGE

IN THE GOOD OLD SUMMERTIME

My friends are always laughing at me because I like summer so much. They say I am a little hip-ped on the subject. Maybe I am. I can't wait to see the summer come, and I feel like wrapping my arms around it to keep it from slipping away.

I remember, when my brother and I were working in the fields of long ago, when we stopped for a few moments to rest he would always look for shade, while I sought the sunshine, unless it was almost blazing hot. It was fun to lie flat on my back, pull the battered old straw hat over my eyes, look up through the holes in the hat at the rays of sunshine... and dream the long, long thoughts of boyhood. Ever do it?

For me, August is one of the best months of the year. It is a sort of payoff month when all the labors of seedtime in field and garden come to fruition. It's a time of sweet corn fresh out of the garden, and popped quickly into boiling water... a time of waving golden grain ready for the harvest... a time to let up a little from the gruelling work in the hayfields... a time for picnics and vacations.

But August is also a sad time, a time of parting, when the children go away to college, or return to work after a few days vacation on the farm. August is the time when a blue haze hangs over the horizon, when the mowed fields, chirping insects, and the harvest

moon all promise that another summer will soon be gone.

August was the time when my family gathered in the dusk on the front porch to visit a little, or to sit quietly in a companionship that was gone all too soon, while we listened to the croaking of a frog down the creek, and watched the fireflies as they flitted across the yard.

On one of those long-ago August evenings Mother sang to us a song that had just come around, "In The Good Old Summer Time." It was immediately popular across all America, and has been played thousands of times by bands, by the organs on the merry-go-rounds, and sung around the parlor organs and in community sings ever since. It expresses my sentiments. The first verse goes like this:

There's a time in each year that we always hold dear,
Good Old Summer Time,
With the birds and the trees and the sweet-scented breezes,
Good Old Summer Time.



When your day's work is over then you are in clover,
And life is one beautiful rhyme,
No trouble annoying, each one is enjoying
The Good Old Summer Time.

WHAT ARE YOU

REALLY WORTH?

Farmers get discouraged sometimes when they compare their income with that of non-farmers. Nevertheless, at the end of a few years their net worth is often above that of non-farmers even though the non-farmer's current income may be larger than that of the farmer.

The reason is that the farmer is a better saver. He saves often without even realizing it. Year after year he greatly increases the production of his farm or of his cattle; year after year he increases the size and the value of his farm and his herd... maybe he has en-

larged his barn or remodeled his kitchen.

All of these improvements may not be money in the bank, but they add to the farmer's net worth. Maybe it would cheer you up to estimate your net worth once in a while!

HARD TO UNDERSTAND

New York State voters will be asked in the November election this year to vote on an amendment to the New York State Constitution which will read like this:

"Should the State of New York operate a lottery, the proceeds to be devoted to education?"

Before an amendment to the State Constitution can be submitted

to the people, the New York State Legislature must pass it twice. To their shame our Legislature has done just that! That our representatives can vote for a lottery is hard to understand, for it shows the deteriorating morality of the times. A lottery is gambling... and gambling is against the law and rightly so... for next to excess drinking gambling causes more trouble and suffering than any other wrongdoing.

If you believe in the principles that are the foundations of character of both the individual and of the nation, you will vote "NO" on this question even if you have to be carried to the polls.

IF YOU ARE GOING TO COLLEGE

One of the greatest tragedies in American education is that over half of the students who enter college do not succeed in graduating.

One of the chief reasons for these tragic failures is that so many freshmen get off to a poor start. They have great difficulty in making the terrific adjustment from home and high school to college dormitory and classroom. Also, many freshmen waste time during their first few weeks and then never have time to catch up.

Because of this sad situation, I devote part of my time to helping Ithaca College students to solve their personal problems and teaching them "how to study" skills.

To aid in this counseling work, I have prepared a set of worksheets on how to organize a good college schedule, how to read with comprehension, how to concentrate, how to get the most out of a college lecture, how to review, how to take notes and how to pass examinations.

In order to help college students anywhere, Ithaca College will send these work sheets, free of charge, to all who apply for them. If you want a copy or know of a student who would like a set, write to Dean of Students, Ithaca College, Ithaca, N. Y. 14850

OPENING THE DOOR

TO YESTERDAY

Of the hundreds of letters that E. R. Eastman has received from readers of his book, "Journey to Day Before Yesterday" one of the most interesting came from Lenn A. Wilson of Millport, New York. He said:

"Your book was just like opening a door and stepping back into my boyhood. All the things that happened around your neighborhood happened around mine. Our neighbors were just like yours, some were saints, some were sinners, some were Republicans, some Democrats. They argued and criticized one another, but when trag-

edy struck they were quick to lay aside party lines and join in a common cause.

"I remember the smells of the general store and of the new felt boots. This store stayed open evenings and had benches to sit on, with a box into which one was supposed to spit tobacco juice. The aim of some was poor. Here the community met and solved all its problems.

"Your description of a day at the fair was so vivid it seemed as though you were describing one of my own days at the Troy fair. In those days a boy was lucky to have fifty cents to spend. But I couldn't take \$5.00 today and have the fun I had with that fifty cents.

"You have a wonderful gift of capturing and preserving those precious memories."

You can get a copy of Mr. Eastman's intensely-interesting and illustrated book with old-time pictures by sending a check or money order for \$5.95 (New York residents add 12¢ tax) to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York 14850 — M.E.R.

CREASING A HORSE

I wonder how many oldtimers who worked with horses can tell what "creasing a horse" meant. I'll let you ponder over it and inquire around about it. Then I'll give you the answer on this page in the next issue.

EASTMAN'S CHESTNUT

A New York State farmer had two hired men and a hired girl. The government boys heard that he was not paying his help enough, so they sent a federal representative to investigate.

"I have heard," the investigator said, "that you are violating the law by paying below the minimum."

"Oh, I am, am I?" snarled the farmer. "Well, over there sitting on a milking stool and whittling is Willie. He milks the cows and does the barn chores. Ask him."

"\$80.00 a week, sir," said Willie.

"There's Hank, my other hired man, ask him."

"\$80.00 a week, sir," said Hank.

"And here's our hired girl," said the farmer, "ask her."

"I git \$60.00 a week" said the girl, "with room and board."

"Anyone else?" inquired the inspector.

"Well, yes and no," said the farmer.

"What do you mean by that?"

"Well, there's the half-wit. He gets \$10.00 a week, a little chawing tobacco, and his victuals."

The inspector's eyes lit up. "Let me see him," he demanded.

"You're lookin' right at him," the farmer answered!



SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK	
Mrs. Raymond V. Widrig, Lacona (refund on record)	\$13.95
Mr. Harold W. Lloyd, Middleburgh (refund of premium)	32.10
Mr. Edmund C. Giza, Central Islip (refund on clocks)	10.50
Mrs. William Bailey, Roscoe (refund on homework)	6.00
Mrs. Donna C. Knight, Allegany (refund on order)	12.98
Mr. Theodore Bastek, Westtown (refund on order)	37.00
Mr. Wilbur Livingston, Stamford (refund on ret. merchandise)	3.95
Mrs. Floyd Chase, Hunt (refund of premium)	12.00
Mr. Chas. W. Lampman, Vernon (refund on book)	5.95
Mrs. James Burns, Franklin Square (refund on bulbs)	4.50
Miss Rema Kenyon, Watertown (refund on dress)	9.15
PENNSYLVANIA	
Mrs. Nellie Schrecongost, Fenelton (insurance settlement)	157.16
NEW JERSEY	
Mrs. Newell E. Davis, Vincentown (refund of payment)	6.00
Mr. Peter Kulbacki, E. Brunswick (damage settlement)	225.00
MAINE	
Mr. Edwin Mayo, Wells (refund on calendars)	1.00
MASSACHUSETTS	
Mr. Ellis N. Day, No. Grafton (refund on order)	8.15

HEARING AIDS

"A few months ago I had a hearing test by my doctor who asked me if I knew I was a little hard of hearing. It often bothers me to understand TV, so I answered some of the hearing aid ads to see what an aid would cost. I am not bad enough so I would want to wear it all the time.

"In reply to my inquiry, the first place sent a man to see me. I told him my trouble and about my test, but he wanted to give me another just the same. He told me the same as my doctor so he must have been honest, but the hearing aid he would sell me would be \$349.00 so I went no farther.

"Two men came as a result of the second ad I answered, and they also gave me a test, although I told them I wouldn't buy if the aid was too expensive. The man giving the test became very worried. He said I was very bad off — so bad that in a short time I would not be able to hear a thing. In fact, he said I had already let the matter go so long there was doubt that I could be helped a great deal.

"I told him about my other tests, one some months before and the other within the week, and I did not feel I had been losing my hearing very fast or was likely to do so. All I wanted to know was what they charged for the aids.

"The salesman said I was so bad I should have one for each ear and that would cost me \$500.00, or \$269.00 for one. He said I was so bad it would have to be made special and that, if I did not give him the order that day, he would have to come and give me the test over because I was going bad so fast. I told him that if I was that bad and getting worse so fast it seemed to me by the time he could get the aid made it would not fit anyway. He tried hard to sell me but without success.

"I left the room while they gave my wife a test. However, they did

not try to sell her an aid as I thought they would, but they tried to scare her into buying for me by telling her I was 85 percent deaf and that in a short time I would not be able to hear anything at all unless I acted at once. They were just about ready to take her money when I stopped it. They went away without any of our money and no order. I am wondering how many others have been taken."

Hearing aids are a great boon to mankind and there are many ethical companies manufacturing and selling aids. Most good aids are relatively high priced; however, it pays to shop around and check prices, as well as to find the aid best suited to one's needs. Our subscriber used the right approach by checking first with his doctor and then taking time to make up his mind. These high-pressure salesmen use the same general scare tactics.

STOCK TONIC

In January, 1966, we received a letter from a dairyman asking for help in connection with stock tonic ordered on November 3, 1965 . . . paid for in advance . . . and not delivered. In February '66, we received two more similar complaints about Snow's Stock Tonic, Old Veterinary Remedies Co., Canistota, New York. Amounts of advanced payments ranged from \$82.50 to \$166.50 . . . for orders placed in October and November of '65.

The dairymen reported that they received no replies to their letters sent to the company; the Utica Better Business Bureau reported similar results. The AA-RNY couldn't get a reply either. We've been told that a representative of the company continued selling the product even though some very unhappy dairymen weren't favored with a reply to complaints.

As of July 7 th, none of the three dairymen who complained to us had received either refund or tonic.

ITINERANT SALESMEN

We have received several warnings that the itinerant salesmen are around again offering to do all sorts of home repair and improvement jobs. These transients, who move in seasonally and move on, are frequently driving pick-up trucks with out-of-state licenses. They may want to paint your roof, resurface your driveway, install lightning rods, exterminate termites, or do any kind of repair work.

Before hiring strangers for this type of thing, check carefully. Ask if they are members of a Chamber of Commerce, if they have a listing in the telephone directory, if they carry an identification card. If you are in doubt, call your nearest Chamber of Commerce or Better Business Bureau.



CAUGHT FOOT IN HAY CRIMPER

Benjamin Cochran age 74 of Ashville, N.Y. received benefit checks totaling \$2050.00 from his local North American agent Len DeFrancisco of Falconer, N.Y. Mr. Cochran carried two North American policies. One paid \$1000.00 accident medical expense benefits. The other paid \$900.00 loss of leg benefits and \$150.00 hospital expenses.

OTHER BENEFITS PAID

Richard York, Andover, N.Y.	\$ 771.00	David Phillips, Collins, N.Y.	\$1348.05
Kicked by cow—inj. knee		Hit by heifer—injured knee	
Mae Coon, Friendship, N.Y.	1415.00	Altus Huestis, Ticonderoga, N.Y.	1830.71
Lost balance fell—broke hip		Auto accident—broke arm, inj. shoulder	
Mae Barlow, Maine, N.Y.	898.03	James Johnston, Burke, N.Y.	1427.00
Auto accident—inj. leg, broke wrist		Jumped from burning building—broke leg	
Robert Hintz, South Dayton, N.Y.	674.55	Everett Rockwell, Stratford, N.Y.	100.71
Roller skating fell—broke leg		Hit by basketball—broke finger	
Walter F. Volk, East Otto, N.Y.	572.29	Lillian Blackchief, Basom, N.Y.	1300.00
Fell over bale of hay—internal injuries		Fell—broke shoulder and thigh	
Thomas Steger, Locke, N.Y.	275.40	Douglas Dietz, Ilion, N.Y.	148.88
Jumped on springboard—broke arm		Playing baseball—broke leg	
Grace B. Harper, Sinclairville, N.Y.	234.71	Julia W. Kobylaz, Little Falls, N.Y.	223.70
Tripped on rug—broke wrist		Hit by bundle—broke foot	
Roger G. Sterling, Elmira, N.Y.	1095.00	Carl R. Robbins, Sacketts Harbor, N.Y.	276.42
Truck accident—broke arm, inj. knee		Kicked by cow—broke rib	
Fred L. Knapp, South New Berlin, N.Y.	910.00	Robert Schell, Philadelphia, N.Y.	354.71
Caught in chopper—loss of arm		Caught in fan—broke finger	
Leon Russ, Afton, N.Y.	598.06	Pius Bush, Lowville, N.Y.	909.63
Stepped in hole—inj. back		Slipped and fell—inj. back	
Asel Spoor, Ellenburg Depot, N.Y.	1305.48	Terence Fitzgerald, Castorland, N.Y.	401.41
Hit by log—inj. back		Caught between bumpers—inj. knee	
Aletha Johnson, McGraw, N.Y.	562.37	David Deuel, Caledonia, N.Y.	138.50
Fell—broke leg		Fell playing ball—broke wrist	
Reuel Dewitt, Delhi, N.Y.	161.10	Harold Johnson, Jr., Madison, N.Y.	510.69
Thrown off tractor—broke shoulder		Hit by trailer—inj. foot	

YOUR NORTH AMERICAN PROTECTION WILL PAY IN ADDITION TO MEDICARE

William Graham, Scottsville, N.Y.	452.14	Lloyd C. Palmer, Hornell, N.Y.	167.13
Thrown from tractor—inj. back		Fell from ladder—inj. shoulder	
Robert S. Mace, Sprakers, N.Y.	1191.92	Wilbur A. Simon, Callicoon, N.Y.	242.00
Kicked by heifer—internal injuries		Thrown off tractor—inj. back	
Warren H. Bever, Amsterdam, N.Y.	705.00	Alan Bennett, Barton, N.Y.	1024.15
Caught in picker—inj. hand		Caught in PTO—broke arm and hand	
Ronald D. Hillman, Lockport, N.Y.	884.34	William Dates, Ludlowville, N.Y.	437.40
Caught in corn picker—inj. hand		Playing soccer—broke ankle	
Elizabeth Schaifele, Verona, N.Y.	408.96	Floyd Granger, Macedon, N.Y.	265.70
Auto acc.—inj. shoulder		Starting motor—inj. hand	
Donald Wilson, Syracuse, N.Y.	907.86	Richard Esaias, Columbia Cr. Rds., Pa.	265.39
Auto acc.—whiplash injuries		Auto acc.—inj. eye, arm, knee	
Richard A. Wyffels, Canandaigua, N.Y.	2205.00	Karl Eisenhauer, Lakeville, Pa.	534.60
Kicked while milking cow—inj. back		Slipped and fell—twisted knee	
Charlotte Gotsch, Maybrook, N.Y.	532.13	Ethel Beecher, E. Brunswick, N.J.	1132.14
Auto acc.—multiple cuts & bruises		Fell—broke ankle	
Hollis C. Ellis, Altmar, N.Y.	511.95	Howard R. Hill, Jr., Blainstown, N.J.	314.28
Ran thorn into finger—infection		Kicked by cow—inj. back	
Raymond F. Denesha, Gouverneur, N.Y.	1098.35	Adolph Heuer, Columbia, N.J.	189.28
Slipped on stump—inj. foot and ankle		Fell off ladder—inj. arm	
Lloyd Miller, Potsdam, N.Y.	675.00	Judith Shontell, Canaan, N.H.	597.14
Kicked by heifer—inj. knee		Auto accident—head inj.	
Clarence Schultz, Cobleskill, N.Y.	903.36	Harold Putnam, Cambridge, Vt.	605.54
Kicked by cow—inj. arm		Stepped in hole—inj. knee	
Kenneth Burgess, Waterloo, N.Y.	261.00	Grant Gorton, Shelton, Vt.	498.64
Cow reared—broke hand		Auto accident—broke ribs, inj. chest	

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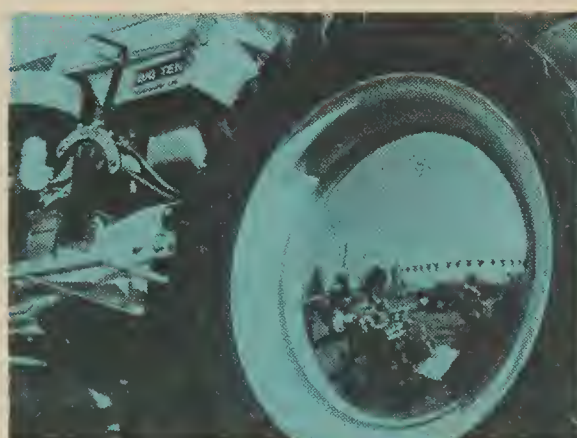
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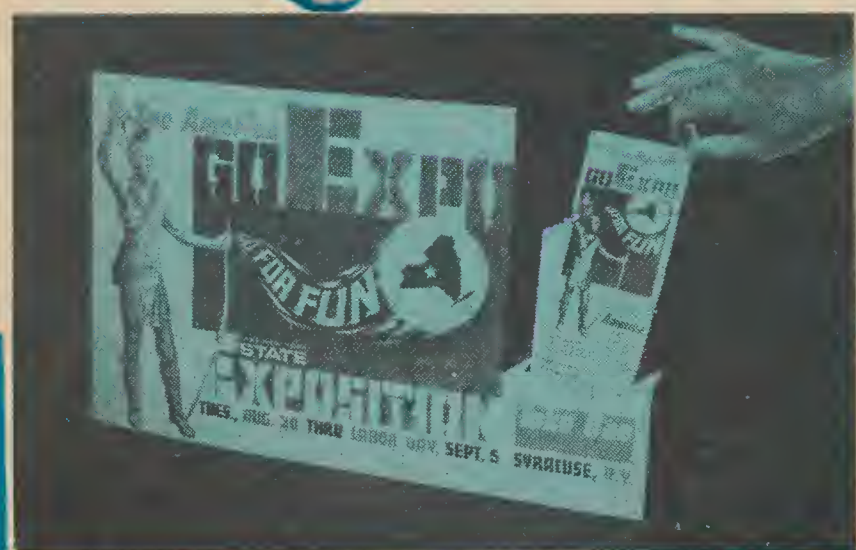
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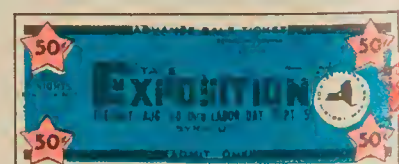
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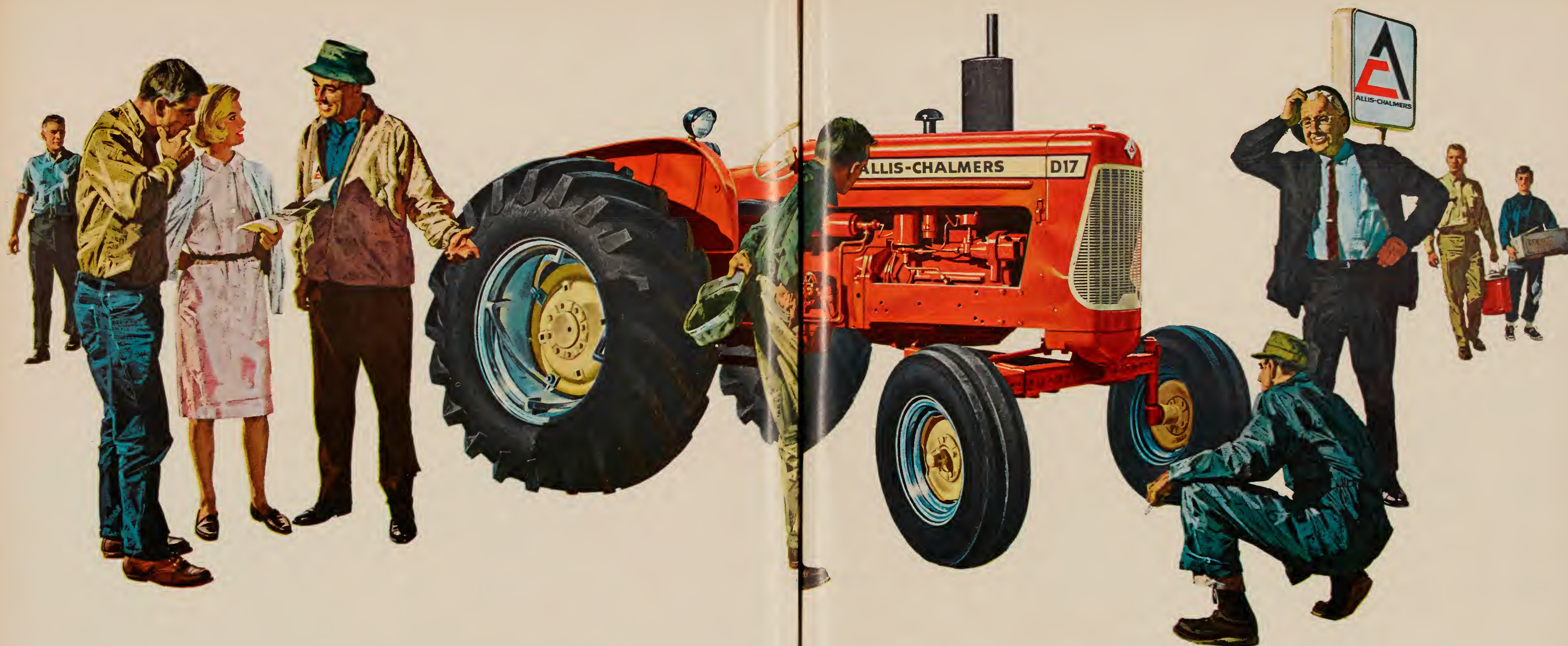


American *A*griculturist
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RURAL NEW YORKER

FOR THE NORTHEAST FARMER



EXPOSITION ISSUE



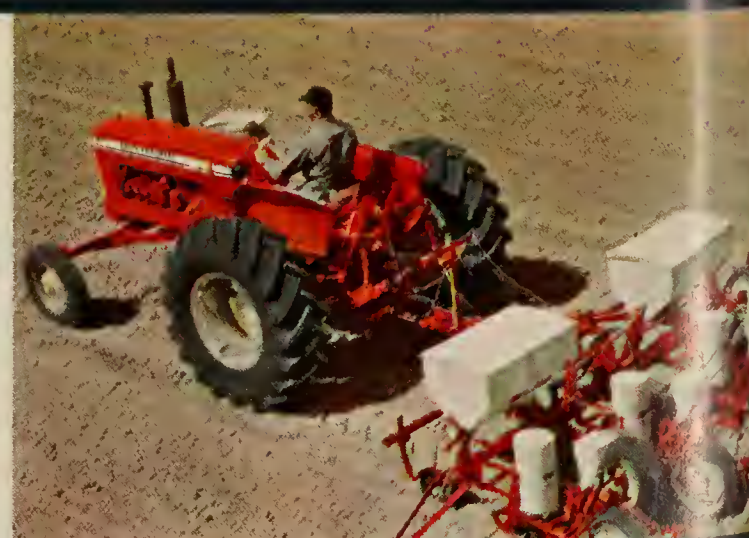
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◀ **Series IV D-17** does an outstanding job of building seedbeds when it teams up with an Allis-Chalmers 4-row mounted bedder. Here’s power for any job on the place!

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Series IV D-17 does a great job of one-man haying as it pulls a 303 baler with thrower and rear-unloading power box and wagon. A good fast way to save more hay.



◀ **One-Ninety XT** (93 turbocharged hp) pulls a big 9000 Series 6-bottom plow in many soils, works longer hours with fewer fuel stops, thanks to its big 48-gallon fuel supply.

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◀ **One-Ninety tractor** (77 hp) offers Console Control, 3 hydraulic circuits, 48-gallon fuel tank, roomy platform. Easily handles big implements in every phase of farming.

Series II D-15 (46 hp) provides for quick shifts to high range for faster travel or to low range for extra pulling power. Exclusive Power Crater engine has punch for tough going.



BHL



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WARM PITS

Donald R. Price, assistant professor of agricultural engineering at Cornell University, Ithaca, New York, reports that tests conducted in the laboratory and in milking parlor pits show that radiant heat from infrared heat lamps overhead in the pit area, spaced 18 inches apart, would provide complete comfort for the operator, except at sub-zero temperatures, if the milking parlor is well insulated. Overhead quartz heaters, he said, would also provide complete comfort if positioned correctly for uniform heating, but they should be on an interval timer to prevent overheating of the head and shoulders.

He found that the lamps provided a much more desirable source and direction of heat than did direct resistant heating panels extending up 2.5 feet from the floor.

BUILDING PLANNERS

The Dairy Farmstead Planning Service of H. P. Hood & Sons which has helped scores of New England dairy farmers plan and erect new farm buildings, has located its headquarters in Middlebury, Vermont.

The primary objective of Hood's expanded Farmstead Planning Service is to help dairy farmers plan and build the farm buildings that will deliver maximum efficiency,

easier operation and future flexibility at moderate cost. By locating in Middlebury, all dairymen throughout New England and Eastern New York can take full advantage of the availability of the Farmstead Planning specialists. The service is provided at a moderate cost to farmers who ship their milk to Hood as well as those who do not.

DAIRY MANAGEMENT

Keeping cows bred, feeding top quality hay, and having skill in "herdsmanship" are the three most important environmental factors influencing milk production in a dairy herd . . . so says L. R. Han-

sen, University of Wisconsin dairy scientist. His study, in cooperation with G.R. Barr and D.A. Wieckert, covered the environment influences in 100 herds in Wisconsin over the period of one year.

It is well established by research that environment has one-half to two-thirds of the influence on milk production, while breeding accounts for the remainder. The Wisconsin study is the first, however, to measure the influence of specific management such as feeding, cleanliness, milking practices, and general care.

Hansen said that the four most important things in environment were (1) percent days herd is in milk, (2) hay quality score, (3) herdsmanship, and (4) calf feeding. Other factors he measured were (5) cow cleanliness, (6) number of milking machines operated per man, (7) herd size, (8) pounds of total digestible nutrients fed per 1,000 pounds live weight, (9) milker vacuum level, and (10) milking machine pulsation rate.

These 10 factors make up what dairy scientists call an "environmental index." The index accounted for 44 percent of the variation in milk production among the 100 herds studied.

DAIRY DOLLARS

It's often been said that the dairy industry is behind most other industries in both product development and advertising. Sometimes the remarks make it seem as though the dairy business is standing still . . . but this is far from the case.

A total of fifty-three dairy industry-sponsored research projects currently are under way, under the direction of National Dairy Council, the Special Dairy Industry Board, the American Dairy Association, the Dairy and Food Industries Supply Association, the Dairy Council of California, and National Dairy Products Corporation, American Dry Milk Institute, and The Borden Company. These projects comprise both nutrition research and technological and product development. All projects are designed to strengthen the market for milk and other dairy foods.

These projects include such things as attempts to lengthen the shelf life of milk and milk products, development of dairy salad dressings, creation of a special high-fat product for the baking industry, and determination of the effect of milk fats on blood cholesterol. Top research people at universities all over the country are working on these projects, whose purpose is to broaden the market for dairy products . . . and thereby increase the demand for milk.



"HOLD IT! Dump that expensive dust out of your trouser cuffs before you go!"
American Agriculturist, September, 1966



**NOW . . . ALL Your Trace Mineralized
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WATKINS FREE CHOICE FEEDING TRACE MINERAL SALT . . . Prepared precisely for livestock, except poultry, this Watkins free choice feeding trace mineral salt is to be kept before animals at all times. All Watkins Trace Mineral Salt is anti-caking. Free Choice is identified by the deep brown color and the Watkins blue on each bag, front, back, sides and ends.



WATKINS FEED MIXING TRACE MINERAL SALT . . . Formulated with the required trace minerals specifically for livestock feed mixing and manufacture, used in same quantity as plain salt. The special green color key with the Watkins blue makes each bag easy to see. Fast zip opening makes bags easier to use, too. Directions and guaranteed analysis on every Watkins Trace Mineral bag.



WATKINS POULTRY TRACE MINERAL SALT . . . This trace mineral salt, with the orange marking, is formulated with the correct amount of trace minerals for poultry feeds. It contains high levels of manganese and zinc shown by research to be necessary for poultry. It is not to be used free choice, but only for feed mixing and in the same quantities as plain salt.



WATKINS SWINE TRACE MINERAL SALT . . . Specifically formulated for swine, this trace mineral salt has a high zinc content to aid in prevention and cure of the swine skin disease, parakeratosis. It also contains the correct amount of other trace minerals for feed mixing and manufacture in the same quantity as plain salt. Look for the yellow imprint "SWINE" on each bag.



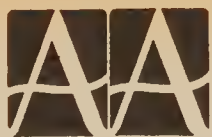
WATKINS MEDICATED TRACE MINERAL SALT . . . Active drug ingredient is Ethylenediamine Dihydriodide, called EDDI, for the purpose of helping prevent foot rot, soft tissue lumpy jaw and simple goiter in dairy and beef cattle. Packaged with a red imprint, it is to be used in place of plain or other trace mineral salt since it also supplies the regular amount of salt and trace minerals.



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American Agriculturist and the RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Volume 163, No. 9

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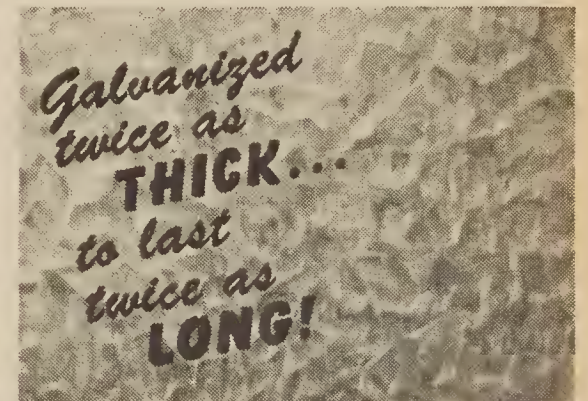
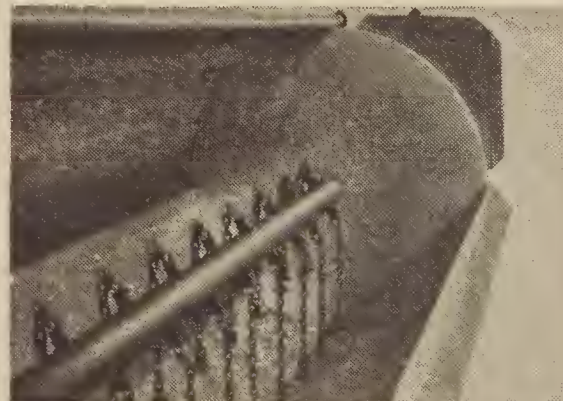
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Regardless of the material... frozen or hard-packed beef manure, cow manure with high straw content, heavy liquid hog or poultry manure, mulching materials or bedding... Starline Rotaspreader spreads it for you at any desired rate-per-acre.

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Williamstown—Wilson Williams Co.

NEW JERSEY

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NEW YORK

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VERMONT

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North Ferrisburg—Yandow Sales & Service

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EDITORIALS

by GORDON CONKLIN



TENURE TROUBLE

In order to protect teachers in our public schools from overly-proud parents and the occasional prejudiced school administrator, a tenure system has been developed. After a probationary period, the teacher is granted tenure and thereafter is guaranteed a job regardless of his level of performance. Theoretically, incompetence or insubordination are legal grounds for the discharge of a teacher having tenure... but, practically speaking, proven moral misconduct is the only basis on which a school board can fire a teacher.

Sociology Professor Robert Nisbet of the University of California calls tenure "a blend of mystique and the sacred, as nearly impregnable a form of differential privilege as the mind of man has ever devised." I'd agree it's pretty ironclad... but would argue that it was surpassed by the theory of divine right of kings as a more "impregnable form of differential privilege."

The Danforth Foundation's Merrimon Cuninggim says that the teaching profession "is the only profession that has no definition for malpractice."

It seems to me that the teaching profession as a whole suffers from this built-in obstacle to the removal of the relatively few who jeopardize the public attitude toward the entire profession. Furthermore... and of even greater importance... there is the problem of educational blight on children who must suffer through the inadequate, or even negative, performance by those few teachers who look upon tenure as a featherbed in which to goof-off safely.

Teachers, in my book, are mighty important people, because how well they accomplish their demanding tasks influences so deeply the character of our entire society. In combination with the home and the church, the school system shapes the course of history. I wonder whether a profession with such a profound mission should defend so vehemently the citadel of inflexibility erected on behalf of a few of its members.

Here's a proposal for you to shoot at. How about a tenure review by a teacher's colleagues every five years? Co-workers would be in a position to judge perhaps best of all the effectiveness of a teacher's efforts. A vote by the rest of the faculty to dismiss the person involved could be accepted or rejected by the board of education... a vote for retention could not be overruled.

In any case, I think some sort of tenure review... by colleagues or school boards... should be provided for. Our educational system, and the teaching profession, are so important to everyone that sentimental consideration for the few should not jeopardize the potential of the many.

GOLDEN BEAN

Year after year for the last decade, some of the experts have been predicting a "soybean bust"... supply exceeding demand so that prices would plummet to unprofitable levels. Just as regularly, the farmers growing soybeans have laughed all the way to the bank! Recently the soybean futures market at the Chicago Board of Trade went wild again... with prices soaring. Without doubt, the soybean has a promising future in world trade,

and offers a profitable opportunity to American agriculture for the foreseeable future.

Congratulations to Bill Brown, county agent of Seneca County, New York, for organizing a regional meeting on soybeans on September 16, at the William Boyd Farm near the Geneva exit of the Thruway.

New Jersey already has 50,000 acres of soybeans... maybe New York farmers can still cash in on this wonder crop.

NUMBERS RACKET

New York's voters will decide next November whether to legalize a state lottery for the support of education. I'm going to vote "no" and here's why:

1. Lady Luck is a poor mother for our children. Education should depend on consistent concern by adults... parents and non-parents alike... rather than on the fickle performance of the people who chase the "lucky" pot of gold at the end of every rainbow.

New Hampshire netted \$2,768,000 on its 1964 state-sponsored sweepstakes... and only \$1,822,916 in 1965. Granite State officials this year are desperately trying to attract more out-of-state wagering money, hoping to dump the cost of educating New Hampshire children onto the backs of residents of other states.

2. The record of publicly-sponsored gambling in this and other countries doesn't make inspiring reading. Man has always wanted to believe he could get something for nothing... and there have been many political leaders happy to accommodate this delusion if it would shift from themselves the responsibility for raising public funds.

If the end... education... really does justify the means... legalizing a lottery... then why not legalize prostitution and take a cut of its proceeds for worthy causes? After all, the girls in the red-light districts will always be as much in demand as poker chips... so why not also give society's blessing to this potentially-profitable human delusion?

Maybe we could train our children to sell blood every week, rather than work, in order to get more spending money. Sure, it might ruin their health in the long run... but think of how the money would roll in!

Thinking people know that it is sustained and constructive effort that solves life's problems and builds a civilization... not some jolly old saint nicking the gullible customers. You and I must pay the shot for the public services we and our neighbors demand... and there are better ways of allocating the tax burden than the relative intensity of our desire to take a chance.

3. There may be more truth than we know in the story about the teacher who returned to her classroom unexpectedly and surprised five boys kneeling in a circle. She sternly inquired about what was going on... and one boy sheepishly admitted they were shooting dice.

"Oh," the teacher said with relief, "I thought you were praying!"

Wouldn't it be ironic to see the day when a child could not legally pray at his school, but could purchase a lottery ticket?

4. I shall never forget walking along the streets of Santo Domingo, in the Dominican Republic, a few years ago. Big sheets of numbered coupons were offered for sale on every

street corner; the national government itself sponsored a huge numbers racket to raise money. The people who bought were the poor and needy... desperately hoping for the riches that the economic and social framework of the country would never allow them to attain.

The moral fabric of this unhappy nation promotes such exploitation, rather than offering a greater return to those whose capacities and energy are especially productive. May we never officially sanction in the Empire State trading such a dismal path!

WORKMEN'S COMP.

Workmen's Compensation becomes mandatory for farm employees in New York State on October 1, 1966. Actually, growing numbers of farmers have over the years been voluntarily carrying this coverage on their employees. The farm community has been divided for a number of years over whether to resist mandatory coverage.

I question whether farmers should ever ask for special treatment on the basis of being too poor to foot the bill... as was done in some instances in connection with workmen's compensation. The only way to get pity is to be pitiful, and the "image" of farmers isn't enhanced by constantly crying poverty.

There were some real problems with the program that caused legitimate opposition... needed refinements of classification, and revision of costs so Empire State farmers could compete with non-covered farmers in neighboring states. The present modified law is far from perfect, but I think New York farmers will be able to live with it... and eventually agree on its desirability.

RED SALES IN THE SUNSET

Canadians recently agreed to supply 336 million bushels of wheat to the Russians over the next three years at a price tag of \$800 million... and also closed a deal involving the shipment of 250 million bushels to Red China. Payments are being made in gold or dollars, not the funny money we Americans accept for huge food shipments under our PL480 law.

This is the third large wheat sale to Russia by Canada since 1963. In that year the Soviet Union bought 239 million bushels, and they purchased another 187 million bushels in 1965. One moral to the story: administratively-controlled communist agriculture isn't working out so well.

The Russians bought 1.7 million tons of wheat from the United States in 1964, but they were exasperated by the long political wrangle over the deal... and resented the demand of American maritime unions that half the shipments be made in U.S. vessels. Since American shipping rates are about double those of the world trade, this concession raised costs.

That "50 percent in American ships" policy effectively isolates this country from a profitable foreign market, does nothing to help the maritime industry because 50 percent of nothing is still nothing, and doesn't hurt the Russians because they just buy wheat from someone else.

I think we've got our heads in the sand on this business of trading with communist countries. History tells us that we once considered ourselves good friends with Russia and China, and at one time a bitter enemy of England and other nations we now embrace. Eventually, I suspect the cycle may repeat itself. Meanwhile, we're kidding ourselves that we're fighting communism with our tactics... and rejecting the possibilities for lessened world tension inevitably involved in freer trade among nations suspicious of each other.

American Agriculturist, September, 1966

**What does it cost you
to feed 225 lbs. of milk
to just ONE calf?**

**Now, when
milk prices
are high,
it's especially
important to sell
all your milk.**

Let's figure why:

For example, if you're getting \$5.00 per hundredweight for your milk, it would cost you \$11.25 to feed 225 pounds to just one calf.

A 25-pound bag of Purina Nursing Chow—all you need for one calf—replaces 225 pounds of fluid milk, and

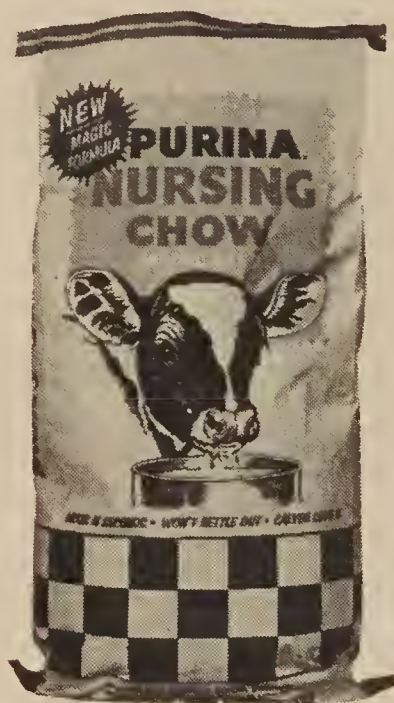
costs approximately \$5.00, depending on where you live. *That's a savings of \$6.25 on just one calf!* If you're raising 10 calves, you could save \$62.50 by feeding Purina Nursing Chow and selling your milk. (Even with lower milk prices, it pays to feed Nursing Chow!)

Other reasons why you'll like Nursing Chow:

1. It's a milk-base milk replacer with a recently improved energy-protein balance to help calves grow fast. Contains vitamins and minerals calves need for a quick start.

2. It contains a powerful antibiotic to help protect your calves against scours.

3. It mixes thoroughly and easily in warm water . . . won't settle out and leave valuable nutrients in the pail.



4. Purina Nursing Chow is fed only to 4 or 5 weeks of age, depending on the calf's weight at birth. This alone can mean a saving to the dairyman who feeds milk or a milk replacer until the calf is 7 or 8 weeks old.

Plan now to take full advantage of higher milk prices by feeding Purina Nursing Chow to your calves. Get Nursing Chow in 25- or 50-pound bags from your Purina dealer . . . at the sign of the familiar red and white Checkerboard.

RALSTON PURINA COMPANY • CHECKERBOARD SQUARE • ST. LOUIS, MISSOURI

**PURINA
CHOWS**

DAIRY FACTS



by Dr. J. P. Everett
Mgr. Purina Dairy Research

Several college studies of calf mortality patterns during the first 12 months show that 40 to 60 percent of the deaths occur during the first month of life. Since the first 30 days are critical, it is important that the calf (1) receive a minimum of 8 pounds of colostrum, (2) followed by a high-quality milk replacer up to 4 to 5 weeks of age depending on the birth weight of the calf, (3) is kept in dry, clean quarters (keeping the calf dry is one of the most important management practices to reduce mortality), and (4) is fed from clean utensils.

Quality Important

Considering the total cost to raise a herd replacement, it is false economy to attempt to "save" a few cents on the small amount (25 lb.) of milk replacer required to get a calf on its way to healthy heiferhood.

In several experiments at our Dairy Research Center, calves fed Nursing Chow, which contains no cereals or plant protein, were 6 pounds heavier at 28 days of age than those fed a replacer containing even limited amounts of cereals and soy flour.

In a Michigan study, calves fed a high milk product replacer were 14 pounds heavier at 40 days of age than those fed a milk-cereal-soy-type replacer.

Dry Calf Starters

A recent University of Kentucky study disproves the old tale that a calf must be taught to eat a dry calf starter.

In the university's trial, calves which had no coaching performed just as well as calves which had dry starter placed in their mouths twice daily.

We have noted similar results in experiments with Calf Startena at our Gray Summit, Mo., Research Farm. We've found that you don't have to teach calves to eat calf starter if you:

1. Feed a high-quality, palatable ration (Purina's is).
2. Offer it in small amounts initially to insure fresh feed, feeding what's left over to older heifers.
3. Decrease the amount of milk replacer fed in the fourth and fifth weeks before milk replacer feeding is terminated.

**Your Purina dealer
will be glad to tell you
about our program
for feeding Nursing Chow
and Calf Startena.**

HELP FOR COLLEGE STUDENTS

by E. R. Eastman

ALL OVER America millions of young men and women, far more than ever before, are preparing to leave home for their first big adventure in life — going to college.

It's a sad fact that of all those who enter college with such high hopes, over half of them will not graduate.

In the last five years, I have tried to help hundreds of freshmen with their personal and academic problems, and out of that experience I can tell you that the chief cause of so many failures is that freshmen do not realize how important the first ten weeks of college are. Unlike high school, no one tells a college student how and when to study . . . and college work is much harder, and much different than it is in high school. So many students fool around and waste time during those first few weeks until suddenly they get their first tests . . . which are harder than they expected.

Thus they get behind . . . and when once you get behind in your college work there is so much to do with the regular work every day that it is almost impossible to make up past work. So all too soon they are on their way to being busted out of college.

How I wish I could find the words to emphasize the importance of working hard, of course all the time in college, but especial-

ly during those first few weeks.

To help me in counseling students of Ithaca College, I have prepared a set of work sheets which are of great help to students in assisting them to make the difficult adjustment from home and high school to dormitory and classroom.

The sheets include information on how to adjust to college, how to organize a daily time schedule, how to study effectively, how to create interest in a subject, how to concentrate, how to take notes, how to review, and how to build and keep goals and ideals.

These guides may be obtained free of charge without obligation by writing to the Dean of Students, Ithaca College, Ithaca, New York, 14850.

THERE OUGHTA BE A LAWN!

Best time to sow grass seed in upstate New York, and most of New England, is around September 1 . . . two weeks later in warmer sections to the south. Before you buy seed, though, remember that there are lots of poor mixtures being offered.

Surveys have shown that only about one-third of the lawn seed marketed is of really high quality . . . that is, that it contains at least 80 percent of the permanent perennial grasses suitable to the climate where planted. This means for the northern two-thirds of the nation mixtures based primarily upon Kentucky bluegrass, red fescue

varieties, rough blue grass, and colonial bent.

The chief ingredient of "cheap" lawn seed, ryegrass, is not lasting; nor does it knit to a tight sod. Some of the tall fescues, such as alta and Kentucky-31, are objectionable in lawns because they usually develop into persistent coarse clumps that must be weeded out by hand.

For most lawns on sunny sites, Kentucky bluegrass should make up at least 55 percent of the mixture. For dry soils, either in sun or shade, red fescues should total at least 65 percent in the mixture.

The sale of trashy seed is a vicious circle. Reputable seed houses would prefer not to market it, but are forced to because mass sales outlets "demand" seed at a price. In turn the supermarkets state that the customer "demands" inexpensive seed. It seems as though the system will change only when the customer really insists upon quality . . . when he searches the required listing on the package to be certain of getting quality turfgrass content.

A CONTEST

Letters and articles received in American Agriculturist-Rural New Yorker offices often comment on some aspect of their "favorite" roadside stands. Which set us to thinking that perhaps some more of our readers would like the opportunity to give *their* comments.

Just where is your favorite road-

side stand . . . and why is it your favorite? For the best letter received on this subject we will pay the writer \$5.00; \$3.00 will be paid to the second best; and \$1.00 will be paid to the writers of all other letters that we find room to publish. Letters should be in our offices not later than September 15. Address them to G. L. Conklin, Editor, American Agriculturist-Rural New Yorker, Box 370, Ithaca, New York 14850.

MORE APPLES

I'd like to add to the list of old-time apple varieties you published some time ago:

Ben Davis — not much good, but the red coloring sold it.

Gano — not much better.

Dominie — red outside and some inside; good.

Grindstone — kept into the second year (in cellars, not storage places like now).

Rambo — one of the best-flavored ever, small, but far superior to today's Rambo.

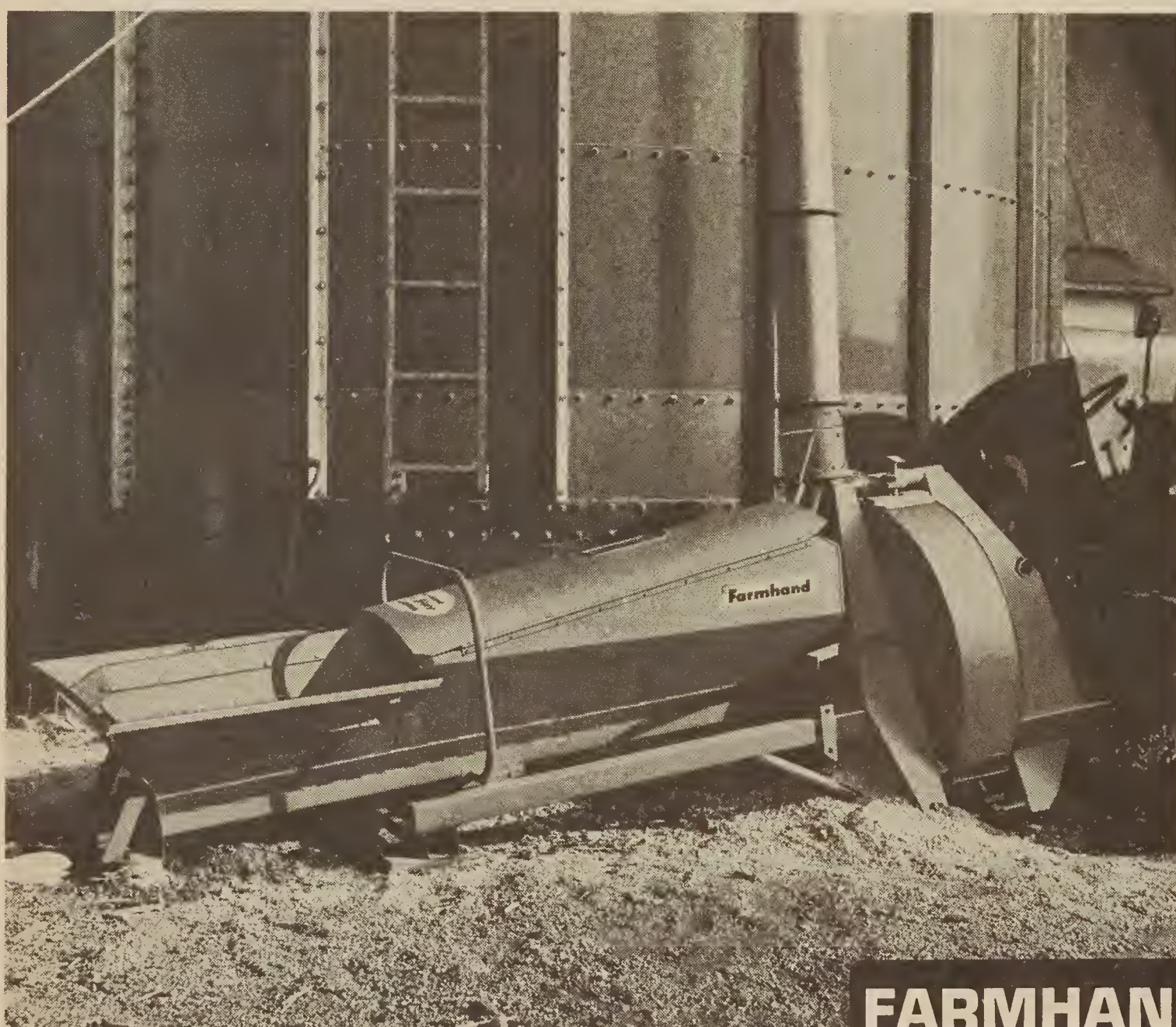
Smith's Cider — good and juicy.

Wolf River — not much flavor, light in weight.

Milus — small, red, flattened shape, good, crisp. Smallest core in any variety I ever knew.

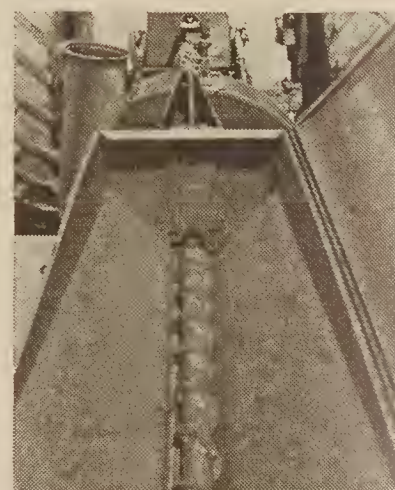
Schroyer — I think locally named for the man from whom the grafts were obtained. Largest I ever saw . . . large as a small dinner plate, light yellow in color, and light for its size. — *Mrs. Charles Leatherman, Smithsburg, Md.*

High moisture corn... try new Farmhand "Corn Blurr!"



UNIQUE BURR MILL-BLOWER grinds ear or shelled corn and blows it into the silo fast! It's extra-efficient on high-moisture corn . . . cutting your harvest labor and field costs, reducing weather losses and keeping feed value up. The "Corn Blurr" is easy and economical to use.

ONLY ONE MOVING PART—Blower, burrs and crusher rotor operate on a single shaft. Position the "Corn Blurr" at the silo, connect blower pipes and it's ready. No staking or tying down. Low, wide hopper, crank-controlled feed rate, accurate grind control. Grinds with burrs and crusher rotor at a rate of up to 20 tons per hour, depending on tractor used, fineness of grind and material being ground. At 540 r.p.m., it will easily reach the top of a 70' silo. This season, profit from the Farmhand "Corn Blurr."



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Hopkins, Minn. 55343

Send free material on Corn Blurr

I am a student, send special material ☐

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THE "CORN BLURR" BELONGS ON YOUR FARM NOW!

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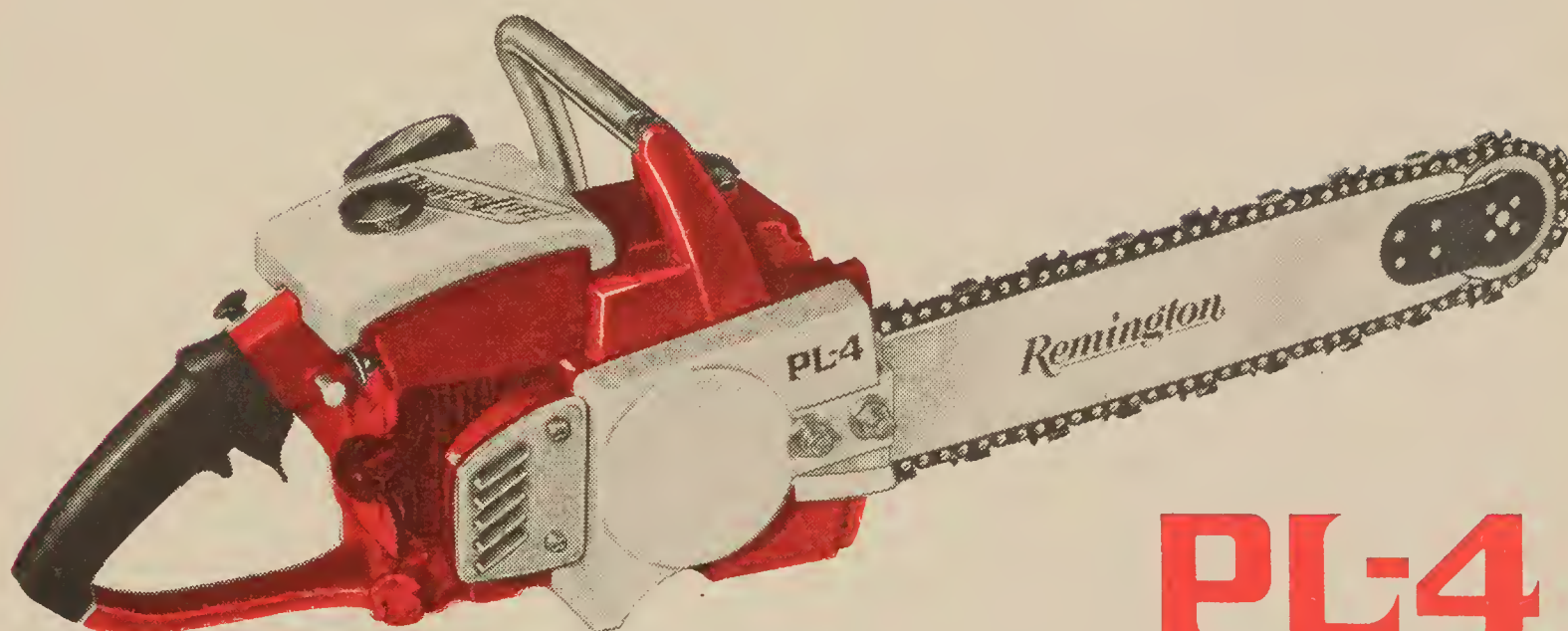
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A & F Tool Rental — Rosedale, L. I.
A 1 Rental — Lynbrook
Aabel Sales — Moravia
Arkwright Inc. — New York
Art's Lawnmower Shop — Mayville
B & H Saw Sales — Elizabethtown
Bernard Barber — Morristown
Beadle & Co. — Richfield Springs
Beldens Saw Sales & Service — N. Ticonderoga
Bellows & May — Middletown
Biddle Purchasing Co. — New York
Stanley Bills — Northville
Blumer Supply — Weedsport
Bob's Gulf & TV Service — Thendara
Bob's Lawn & Garden Mart — Chatham
Maurice Bowers — Trumansburg
Bowman Sales & Service — Clinton Corners
Bruns Trucking — Davenport
Burgers Sales & Service — Catskill
George Burnison — Attica
Cain Tractor & Implement Co. — Cortland
Ben Caliendo Equipment Rental — Ozone Park
Cameron & Cameron — Athol
Carl's Lawnmower Shop — Patchogue, L. I.
Carpenter & Sunderland — Broadalbin
Centereach Lawnmower Center
— Centereach, L. I.
Chiavetta Bros Inc. — Wellsville
Thomas C. Chiavetta — Brant
A. R. Christiano Hardware & Implement
— Leicester
Clarence Lawnmower Service — Clarence
Clarkstown Equipment — Spring Valley
Clinton Farm Supply — Clinton
C. Mark Corp. — Hicksville, L. I.
Community Rent-Alls — No. Merrick, L. I.
Contractors Supply Corp. — Long Island City
Contractors Supply Corp. — Westbury, L. I.
Contractors Trading Co. — New York
H. W. Cook Farm Service — DeRuyter
Cowans Esso Service — Burke
A. R. Davis — Ithaca
E. R. De Coste & Sons — Mooers Forks
M. C. & C. M. Drake — Arcade
Dryden Implement Inc. — Dryden
Ed's Mower Shop — Cornwall on the Hudson
Fabius Hardware — Fabius
Fairville Garage — Newark
Farm & Home Store — Madison
Richard Farr — Long Lake
Finger Lakes Equipment Co. — Waterloo
The Fix It Shop — New Lebanon Center
Flushing Saw Shop — Flushing
Fort Neck Tool Rental Co. — Massapequa
Eugene Fortier — Tupper Lake
Stanley Freeman — West Leyden
Freeport Equipment Sales & Service — Freeport
Howard L. Gage Inc. — Altamont
George Engine & Lawnmower — Norwich
Gilling & Nedrow — Kings Ferry
Pete Giltz Implement Co. — Theresa
Glen City Garage — Watkins Glen
Glen Head U-Rent — Glen Head, L. I.
Goodrich Implement Co. — Johnson City
A. J. Grabs Sons — Hudson
Graves Logging Supply — E. Cobleskill
Greenville Farm Supply — Greenville
E. Gumienik — East Randolph
Hallsville Farm Supply — Ft. Plain
Edgar Handy Garage — Sharon Springs
R. S. Hardic & Son — Edmeston
Everett Hawley — Callicoon
Hayes Exchange Store & Auction Service
— Penn Yan
Ralph C. Herman Co., Inc. — Marlboro
Hillmann Bros. Equipment Co. — Selkirk
Don Howard — Canandaigua
Jess F. Howes — Sidney Center
Huntington Grinding — Huntington Station
R. Max Hyde — Middleport
Jim's Garage — Ft. Johnson
George A. Jolley — Salem
Kellers Saw Shop — Elmira
Douglas Kelly & Son — Margaretville
R. G. Kentner & Sons — Lisbon
Keough Marine Sales — Saranac Lake
Kinneys Plowing & Trucking Co. — Camden
T. J. Klindt — Downsville
Kyles Farm Machinery — Martville
Lange Hardware — North Bellmore
Larry's Mid-Island — Glen Cove
Larry's Saw Shop — Kanona
Lester's Service — Essex
Liddle Brothers — Andes
Lifco, Inc. — Mineola, L. I.
Long Island Lawnmower — Inwood, L. I.
Loughman Building Supply — Cairo
Louis Lawnmower — Briarcliff Manor
Lou's Repair Shop — Middletown
Mac's Service — Vermontville
Mahoney Clarke Inc. — Long Island City
Main Motors Inc. — Corinth
Main & Pickney — Auburn
Mallettes Garage — Harrisville
Marshall Machinery — Merrick, L. I.
Master Equipment — De Freestville
Bob McKerrrow & Son — Springville
McKerrrow Bros — Freedom
Mike's Bicycle Shop — Elma
Mike's Lawnmower — Poughkeepsie
Mike's Small Engine Repair — Monroe
H. G. Miller Service — Mexico
Miller Place Service Station — Miller Place
N. Y. Plumbers Specialties Co. — Bronx
Francis Nicholl — Deer River
Edward Oliver — Nineveh
Oneida Milling Co. — Oneida
Ovid Small Engine Clinic — Ovid
Pearl River Cycle Co. — Pearl River
C. V. Pierce Company — Pleasantville
Pope Brothers Garage — New Berlin
Power Mower Repair — Kingston
Nelson Pratt — Schuylerville

From Remington



PL-4

PowerLite PL-4 is an easy to handle light-weight chain saw. And that's important when you must be on the job day after day. The PL-4 gets the job done without tiring you out.

PowerLite PL-4 has more features than other comparable models. 12 lbs. of cutting power—3.6 Cu. In. engine—Roller Bearings used throughout—Exclusive Roller Nose Guide Bar.

Also see Remington's Super 754, PL-5, PL-6

Most extensive guarantee in the chain saw industry

REMINGTON CHAIN SAW 2 YEAR GUARANTEE

REMINGTON ARMS COMPANY, INC. guarantees this product against manufacturing defects in materials and workmanship. Should your Remington chain saw require service under the guarantee, send it prepaid to Remington Arms Company, Inc., Power Tools Department, Park Forest, Ill. Defective parts will be replaced without cost of parts or labor to the original purchaser. Your chain saw will be returned to you prepaid.

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Schleede Farm Supply — Lyons
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Shaw Jobson — Haverstraw
Sheehan Hardware — Jamaica
Sipple Service — Hankins
Slabs Garage — Little Falls
Sochackies Garden Center — Roosevelt, L. I.
Stillwell Equipment — Elmsford
Stillwell Supply Co. — Long Island City
Syracuse Farm Supply Corp. — Syracuse
David Teuscher — Rome
Theimers Garage — Monticello
Thruway Engine Clinic — Schnectady

Clinton P. Tompkins — Liberty
Tracy Saw Sales — Speculator
Trio Wholesalers Inc. — Farmingdale, L. I.
Trimalawn Equipment Co. — Staten Island
Unitco Rental — Mineola, L. I.
United Rent-Alls of Cen. Nassa — East Meadows
United Rentals — Port Jefferson
Utter Brothers — Pawling
Vails Gate Rental Mart — Vails Gate
Ralph Verbridge — East Williamston
Vernon Machine Garden Supply
— Northport, L. I.
George Von Barga — Stone Ridge
Waterbury & Coe FD & FM Supply
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West Shokan Garage — West Shokan
West Seneca Tool Rental — Buffalo
Westwood Paper Co., Inc. — New York
George W. White — Whitney Point
John Widrich — Lowville
Wilson Farm Service — Constable
Yale Hardware — Milford

NEW JERSEY

Al's Place — Woodstown
Barg & Morford — Freehold
Blairstown Electric Co. — Blairstown
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Contractors Trading Co. — Hoboken
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Dick's Lawnmower Service — Morganville
Force Machinery — Union

Galbo Co. — N. Bergen
Gauthier Door Check — Maplewood
Grovers Mill Co., Inc. — Princeton Jct.
Heyniger Brothers — Belmar
Histands Garage — Mantua
Homcraft Rental Service — Succasunna
Howlett Hardware — Absecon
Charles Hurff — Monroeville
Oscar Jenkins Co. — Mullica Hill
K & H Auto Stores — Pitman
Kish Brothers — Highland Park
Manns Hardware — Hewitt
Master Grinding Co. — Denville
McManus Floor Machine — Hackensack
New Jersey Lawn & Power Mower — Ledgewood
Northern Valley Mower & Equip. Shop
— Old Tappan
Olden Supply — Trenton
Passaic Grinding Shop Inc. — Passaic
C. W. Plummer — Salem
Pops Tool & Machinery — Paterson
Wm. Potter & Son — Middletown
Reeves Lumber Co. — Port Elizabeth
H. G. Rice — Edgewater
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Rusnak Brothers Inc. — Hammononton
The Sharp Shop — Midland Park
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Sirco Products — Haddonfield
Slusars Garage — Swedesboro
Sparta Tool Rental — Sparta
United Rent-Alls of Lakeland — Haskell
Steve Willand — Montville

The Mark of a Pro

As seen through
the eyes of four top
DHIA supervisors

by Bob Cudworth

Heavier grain
feeding to
fresh cows

Build up
the dry cow

Raise
husky calves
& heifers

Watch records
carefully

Control
Mastitis

NO ONE has the opportunity to watch practices of dairymen much closer than Dairy Herd Improvement co-op supervisors. This round-table story is a result of asking four different DHIC supervisors in New York State their views on a series of questions dealing with "What Makes A Good Dairyman?"

Experienced

Each of the men has had several years' experience as a DHIC supervisor, and all have an agricultural background. They include: James R. Kydd, Niagara County; Richard Russ, Chenango County; Walter Close, Otsego County; and Jess Brown, Cattaraugus County.

What is the feeding program of a good dairyman before and after freshening?

CLOSE: Good dairymen increase grain feeding about 2 weeks before freshening and have cows on full feed at calving. Many "lead feed" on grain . . . about 2 lbs. per cow more than the book shows . . . to take care of an increase in production if it's there. In other words, it's exploiting the cow, hoping for something in return.

If the extra feeding pays off, grain rations are maintained at high levels as long as production stays up. As production drops, the grain is dropped accordingly.

BROWN: I feel you should grain cows at least 3 weeks before freshening . . . increasing grain 1 pound a day until they get up to 14 to 16 lbs. of grain at calving. They will be adjusted to grain.

After freshening, lead the cow along . . . give her more grain than for what she is actually producing. If she has been on test, we know her ability, and she should be grained to her ability, plus a little more.

Then when the cow has peaked, cut back on the grain. If you are after an economical record . . . a good profit picture . . . you must cut back promptly when production drops. Of course, the cow should get all the good-quality roughage she will eat, and the more successful dairymen are feed-

ing more often and not so much at a time. One problem with automated feeding is that sometimes too much is fed at a time; some stays in the manger or feed bunks and gets unpalatable.

RUSS: Farmers seem to have less trouble with milk fever when they start increasing grain 2 to 3 weeks before calving so cows are on full feed when they freshen.

The present-day high genetic buildup for production is quite a problem, and getting a cow on full feed helps to hold up body weight so there is less drop-off later in lactation.

A good dairyman knows how to feed a good cow. He can tell when to start cutting down on grain . . . he studies her ribs a little. I find, too, there is such a thing as getting a cow out of balance sometimes between her intake of roughage and intake of concentrates, and that occasionally a farmer has to cut down on grain a little.

KYDD: Grain should be increased gradually just before freshening so that the cow has an abundance of bacteria in her rumen to digest the grain she needs immediately after freshening.

Grain should be increased rapidly after freshening until there is a noticeable leveling of milk production, with careful attention being paid to the condition of the cow's udder.

How does a good dairyman handle dry cattle?

KYDD: It is very important to provide the dry cow with an abundance of excellent feed during the dry period to assure the complete rebuilding of her body from the losses incurred during the previous lactation.

I would like to re-emphasize, however, the grain should be increased slowly during the latter part of the dry period so the cow will have an abundance of rumen bacteria at calving for digestion of the heavier grain feeding she will be getting.

CLOSE: About two months before cows are due to go dry, they are dropped to 2 to 4 pounds of grain

daily. This seems to be sufficient to maintain body condition during most of the dry period.

It must be kept in mind there is no substitute for good quality roughage, as well as sufficient grain to help the cow rebuild her body.

BROWN: The dry cow should be treated like one of the milking herd, and her roughage should be just as good quality as the grain. Also, a good dairyman is concerned with a dry cow's udder, because she can have udder infection flare-ups too.

If a dairyman is using two barns, then any change in housing should be made before calving so a cow doesn't have any real drastic change afterwards. A good period ahead of calving she should certainly be on the same ration she will be milked on.

RUSS: The dry cow should not be neglected, she should have attention, but I don't think too much grain is necessary during the first part of the dry period. At this time, emphasize the good quality roughage.

It's important also to have an available supply of salt and trace minerals . . . loose, not in block form . . . especially at the time when the calf is being formed. The cow needs these minerals especially to replace the calcium she is taking out of her body.

How does a good dairyman handle young cattle?

RUSS: On this question, I'd like to mention the program of one of our dairymen . . . John Chapman of Bainbridge . . . who does a top-notch job on young cattle. He keeps calves in individual pens until they are 2 to 3 months old, and makes sure they are dry, with no drafts. He keeps them on milk for two months and feeds grain and hay free choice. After weaning, he feeds them 4 lbs. of grain daily.

After he gives them this fast, husky start as calves he puts them in a pole barn building, where he has one pen for the young heifers, and another pen for the older ones. Plenty of good hay and an automatic supply of water are always

(Continued on page 12)



James Kydd, Niagara County



Walter Close, Otsego County



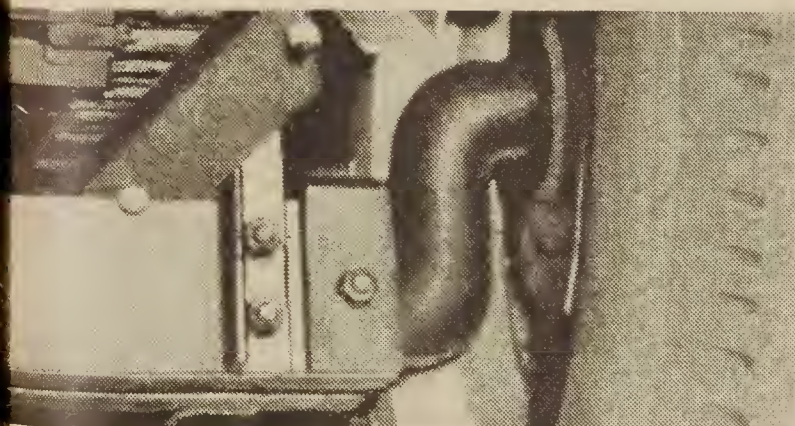
Jess Brown, Cattaraugus County



John Chapman of Bainbridge, N.Y. (right) shows calves to DHIC Supervisor Dick Russ, Chenango County.



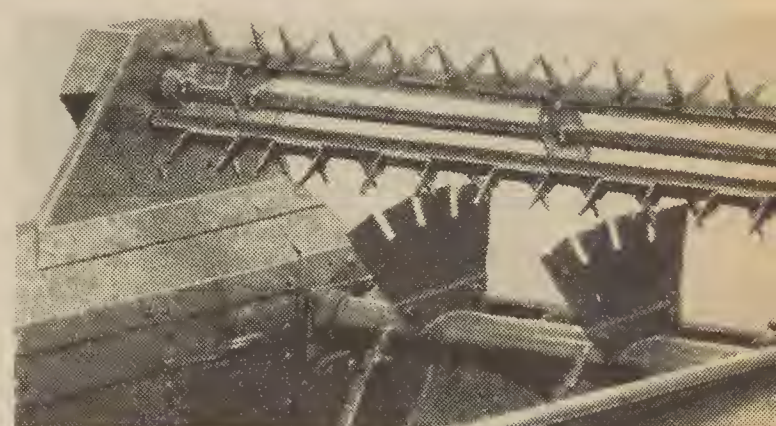
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3 new spreader features help you load, haul and spread easier

McCormick International® spreaders always were efficient. But now there are 3 new devices to make your work easier than ever.

A new drop axle for easier loading. A slurry pan attachment for cleaner hauling. And an upper beater attachment for more uniform single beater spreading. Add these to the advanced features these spreaders already had:

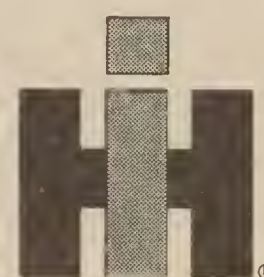
The single beater with 10 massive, whirling "bear claws" that tear, shred and spread—reducing frozen material to fine particles. (These "bear claws" shred so fine that you can topdress new growth without

smothering it). Apron chains that run on replaceable wear strips under the box—out of trouble.

And heavy-duty IH construction. Extra-heavy drives. Single piece 7-ply penta-treated floors.

Two smaller models than the 175 shown above—130 and 155 bushels if you want. And for big operations, see the 275 with bogie axle, or the 320 truck-mounted giants. Both single beater design, too, with upper beater and slurry pan attachments available.

See your IH dealer. And be sure to ask about the IH "pay-as-you-grow" plan for easy ownership.



INTERNATIONAL HARVESTER COMPANY

The people who
bring you the machines
that work

Pro (Continued from page 10)

available, winter or summer.

KYDD: I am afraid that young cattle and dry cattle are oftentimes relegated to a secondary position when it comes to feed and care, and that many dairymen lose considerably with this practice.

It's quite important that dairy cattle be fed a complete ration, in abundance, throughout their lives. That's where there should be little difference between the care of young cattle, dry cattle, and cows in milk.

CLOSE: Young cattle should be kept close to home . . . preferably in a barn with the milking animals . . . or in a pole barn or other dry building nearby.

This permits them to be watched closely for heat periods and prevents them getting too "hawky," so they will be used to people. Also, they can be fed plenty of roughage and always have access to drinking water when they are close by.

BROWN: A good dairyman is very selective in choosing the calves he is going to grow because it will save some disappointments later.

I notice that some dairymen do not do a good job in raising calves on milk substitutes, and I think it's due to their being overconscious of the cost factor. Some dairymen may have to feed more than the recommendations call for. However, if you are going to have a heifer freshen at 2 years, you

can't stint on the feed in the early weeks. Nor can you feed the poor roughage to the heifers.

Where there is a free stall setup, calves and heifers should be grown the same way . . . not in stanchions . . . because they must learn to compete with the others for feed.

What are the most important milking practices used by a good dairyman?

BROWN: I like to see the heifers milked first and the problem cows milked last . . . even if a farmer has to come back to do them. I feel that massaging and proper letdown is especially important . . . even more so than washing udders. Dipping teats will eliminate mastitis more than anything else.

My chronic complaint is not hearing the milking machine running properly. It's important to keep the pulsator and machine in proper repair so it will do a good job, but I will admit it is sometimes a problem getting service on machines as quickly as we should. RUSS: It's important to wash the udders with warm water and some kind of antiseptic solution, having an individual towel, using strip cups to get first milk started, and dipping teat cups between cows in an antiseptic solution . . . but one of the big problems is leaving machines on cows too long so that teat ends get irritated.

Then when the machines are off, the teats should be dipped in an antiseptic solution. This helps to prevent any mastitis spread that may just be starting.

KYDD: After observing many milking practices, and dairying myself for 14 years, I feel that proper preparation of the cow prior to milking, proper vacuum, and careful observance of the cow during the milking procedure are important.

BUT, I feel that regularity in all procedures seems to be the most important factor of all. This insures having good milking practices at every milking.

CLOSE: Most farmers need a pump large enough to handle more machines than are currently in use in order to avoid getting low vacuum. Low vacuum is probably one of the largest causes of mastitis.

Washing udders and using strip plates are all important, of course, but too many farmers are guilty of leaving machines on the cow too long. When a cow's done, get the machine off!

What are the most important factors of herd health?

CLOSE: Most dairymen don't stress enough keeping strangers out of the barn. People whose shoes and rubbers have not been disinfected should not be allowed to parade up and down in front of the cow's dinner plate!

The State Mastitis Control Program has been effective, and such things as rubber mats have helped to reduce slipping, which sometimes causes teat injuries. Another important essential to herd health, however, is having good ventilation in a barn so a cow always has good ventilation . . . it prevents her from getting fidgety, controls moisture in the stable and hay mow.

BROWN: I think the most important factor in herd health is a sterility program. I'm sold on a monthly sterility check on all cows in need of it . . . many vets are doing a good job helping farmers in this respect.

The Whiteside Test is helping make farmers more conscious of the mastitis problem and, of course, cleanliness is always important to help eliminate the possibility of spreading mastitis. I feel, too, that heredity may be a factor in mastitis incidence . . . especially as to the type of animal that becomes afflicted with it most often. I would

(Continued on page 13)

Everybody makes trace-mineral salt. Why should I buy Morton's?



Salt is our middle name.

The famous Morton name means quality, and is one reason why it pays to feed the best selling trace-mineral salt—Morton T-M. Here are several more:

- Morton T-M Salt contains the six essential trace elements in a balanced nutritional relationship, with the levels shown in the guaranteed analysis on the label. This means built-in quality control for your feeding

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Feed Morton T-M Salt to your ruminants. "Free" choice or "no" choice. Either way, you know your cattle get all the trace-minerals you paid for. The name Morton Salt Company on the bag guarantees it. Morton is more than salt, it's ideas in action.

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(Continued from page 12)

always check cow families thoroughly to see if there was much incidence of mastitis in their background.

RUSS: Many dairymen in our area are on the State Mastitis Control Program. They take individual quarter samples and provide treatment for whatever is found as a way to prevent mastitis or any other problem from spreading.

Especially important, also, in preventing mastitis troubles is to have adequate bedding and stalls that are long enough and wide enough so that cows don't get hurt. **KYDD:** The factors which I feel are very important for herd health are: (1) proper care of the cow's udder with sufficient bedding and recognized milking practices; (2) pregnancy checks; (3) tests for acetone for all fresh cows for a period of six weeks after freshening.

And I think most important is very carefully observing all the cows at all times in order to catch any irregularity before it has progressed to any degree.

What features of a breeding program are usually the mark of a good dairyman?

KYDD: A good dairyman carries on a breeding program that assures the use of bulls which will significantly raise the caliber of cattle he has . . . whether it be in milk production or type.

He also needs a complete set of records on each cow to determine the weaknesses which can be changed by such a program.

CLOSE: I find good dairymen keep heat expectancy charts and barn breeding records and use AI tested sires. Also they turn cows out daily to watch for standing heat periods.

It's also very important to have cooperation between the farmer and the technician for his insemination service in order to have the smoothest working breeding program.

BROWN: I mentioned earlier the importance of a sterility program and that a farmer must work closely with his veterinarian.

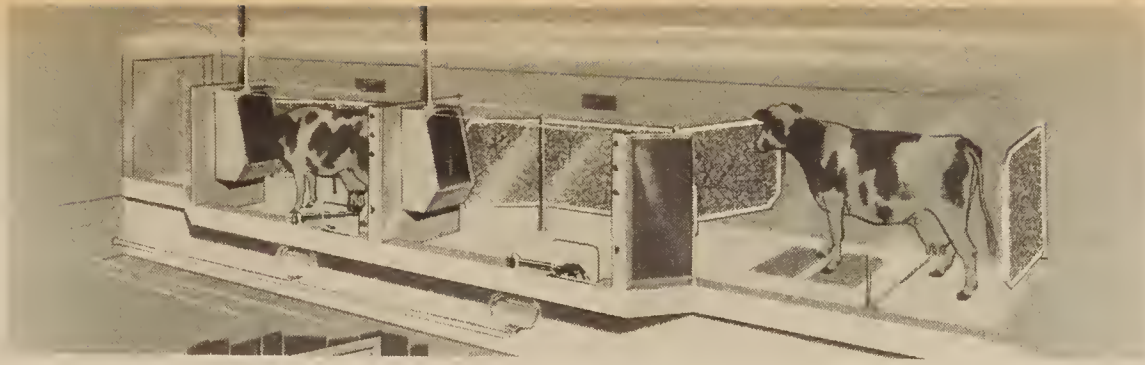
One good rule with any cow you wouldn't raise a calf from, and don't intend to cull, breed her to an Angus or Hereford and keep the calf for beef.

In cases where the farmer is not interested in keeping calves and is going to keep a bull, then he must be sure the bull is clean.

RUSS: A good breeding program is basic. If you don't have good breeding then you can't do anything else in the way of production or herd improvement.

This means for one thing using AI sires, because the blood available through the services is better than anything else available 99 per cent of the time. Also, a good dairyman will plan to breed his heifers at 15 to 16 months of age so they will come into production at two years of age.

American Agriculturist, September, 1966



DREAM PARLOR

An automated milking parlor is the dream of the future, and DeLaval Separator Company has released its version of what it will be like. They believe that the farmer of 1975 will need only to attach the milking units.

For a 500-cow herd one milker in the morning and one in the

evening will each spend four hours on the job. As the cow enters the milking parlor she will pass between sprays that will wash her udder. Then she will pass over a drain and a blower that will dry the udder with warm air.

Moving on to a stall, the cow will receive a pre-determined amount of feed according to her productivity; her identity is printed

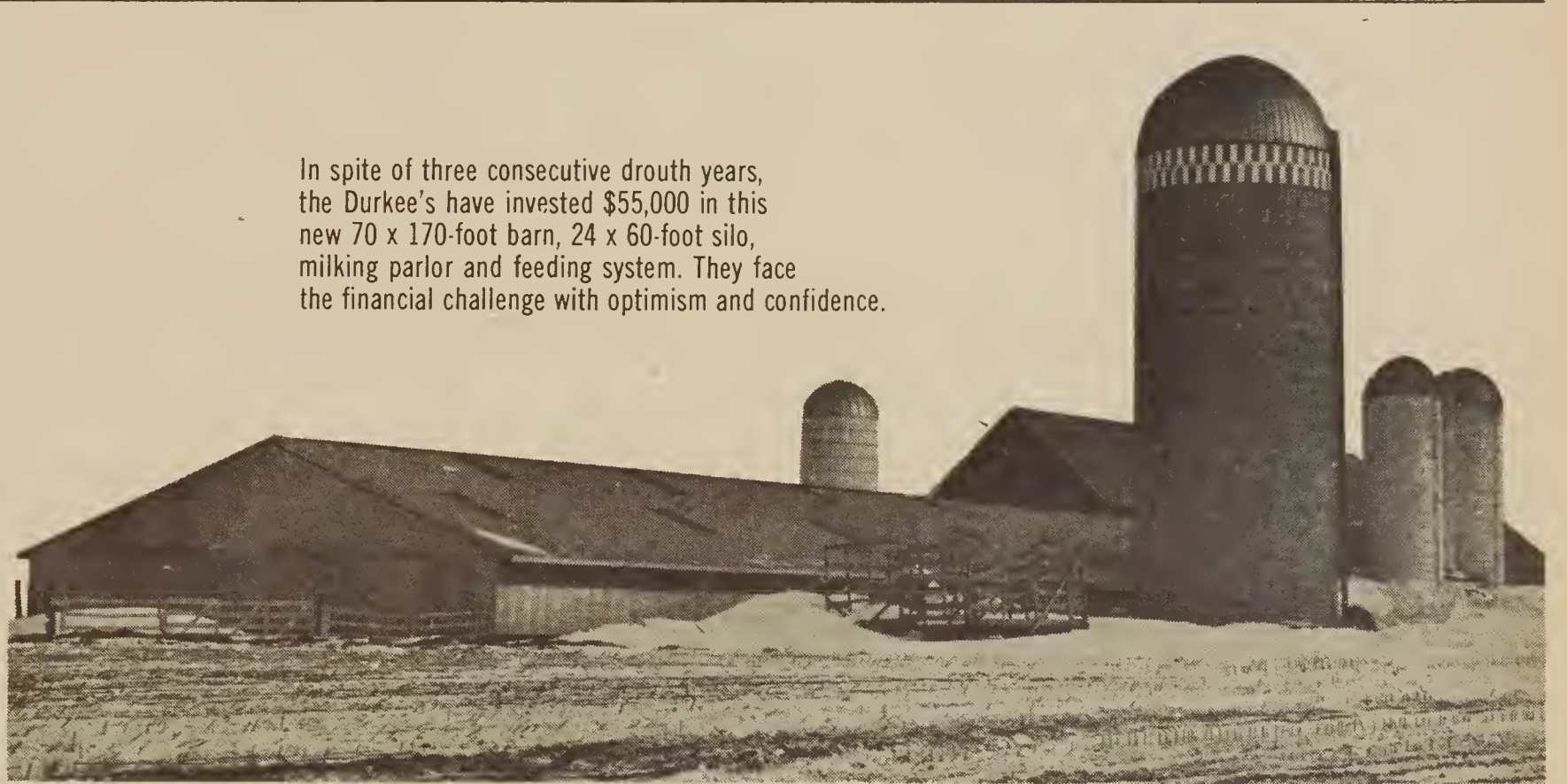
on a milking performance chart, the operator attaches the milking unit, and moves on to the next cow.

Any abnormality in the milk will be immediately detected and marked on the chart, and unmarketable milk detected will be automatically diverted.

No foremilk will be necessary, and cows will be conditioned to let down all of their milk, thus eliminating stripping.

At present estimates, it is believed that automated milking would not be economically feasible for units of less than 100 cows, figuring on 6 minutes per cow.

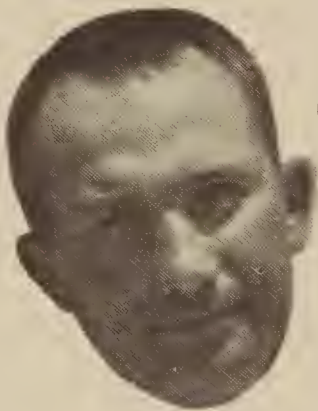
Just a pipe dream at present . . . but present-day pipe dreams have a way of becoming actuality these days!



In spite of three consecutive drouth years, the Durkee's have invested \$55,000 in this new 70 x 170-foot barn, 24 x 60-foot silo, milking parlor and feeding system. They face the financial challenge with optimism and confidence.



George Durkee



Fred Durkee

"We consider Farm Credit Service a definite part of our operation."

The Durkees of Durwich Farms
Ontario County, N.Y.

At one time, this father and son team wanted to be completely independent. Today, they view capital and credit in a modern manner. "We feel that, in a way, we're selling stock in our farm business," says Fred. "Other people's earnings and savings make more things possible in farming."

Farm Credit personnel have played a vital role in the Durkee's expansion. "We think of Len Jackson and Phil Eastman from the Farm Credit office in Canandaigua as a definite part of our operation," Fred states.

How about your plans for modernization or expansion? Join the many progressive farmers who get the money they need to grow and prosper from their own Farm Credit Service. Drop in and see your local manager or write: Farm Credit Banks of Springfield, 310 State Street, Springfield, Mass. 01101



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A GOOD PASTURE CROP

by Amos Kirby
New Jersey editor

A NUMBER of New Jersey dairymen are bucking the drought with a pasture crop that is a cross between sudan grass and sorghum. William M. Anderson, Columbus, reports sowing seed about June 1 on an old pasture sod field that had been grazed for many years. About July 1 the cows were turned into the field. When I visited it on July 8 the grass stood nearly four feet high, and the cows were eating it with the relish with which they would go to May pasture. Milk production was being maintained

at a high level considering the high temperatures.

This hybrid makes excellent silage. At the Pennsylvania Farm Show silage made from it won first prize in competition with corn and hay silages.

A number of dairymen seeded barley stubble land to the hybrid; in their opinion it will produce a larger tonnage of silage than late-planted corn.

Placing wheels under irrigation pipes cuts the labor cost of moving from one location to another.

Bob Jennings of the Jennings Equipment Co., Lumberton, New Jersey, explains the system. A 4-inch main is mounted on wheels with the pipe running through the hub. A line of 1700 feet of irrigation pipe with wheels every 40 feet is the recommended practice. Midway of the irrigation line is a pusher, consisting of a Briggs & Stratton type of engine, which provides the power to move the entire 1700 feet of pipe to the next location.

The system is ideal for potatoes, tomatoes, beans, and most other row crops. It is estimated that under average conditions the cost of laying and moving irrigation pipe may be reduced by 50 percent. The system I saw was on the

Mercer Sod Company farm near Columbus, and was the fifth that Mr. Jennings had installed this year.

AIR CONDITIONING

Dairy specialist Edward T. Oleskie, College of Agriculture, has some ideas on air conditioning for cattle.

Cows respond to air conditioning in the pasture. When the weather is hot they graze more at night than in the daytime. It is suggested that the best pasture be used for evening feeding.

Another type of air conditioning is shade. When temperatures rise to above-normal levels, as they have this summer, milking cows need shade for comfort. County agent Lorenzo comments that milk production may drop as much as 20 percent when the temperature increases from 75 to 85 degrees.

Short of shade in the pasture field? Lorenzo has a suggestion. Use that snow fence; support it on cables.

TURKEY MUD BATH

William Bappert, Gloucester County turkey grower, suggests mud baths for turkeys when the temperatures rise above 90 degrees.

For three consecutive days this summer the temperature went above 100 degrees. On the first day there was a good breeze, and while the turkeys suffered from the heat, the mortality was very low.

On the second day with over 100-degree temperatures, there was a breeze until 4:00 p.m., with the same results. Shortly after 4:00 p.m. the wind died down, and by 6:00 o'clock over 5,000 turkeys had suffocated. That evening the breeze came up again, and there was no further mortality!

On the third day with over 100-degree temperatures tons of thousands of gallons of water was pumped on ranges by local fire companies. This created a mud bath, which attracted the turkeys. They settled down in it with their breasts against the cool earth, and the rest of Bappert's 20,000-bird flock was saved.

SOD REPLACES POTATOES

Frank Cacavie, Trenton, is growing sod on land that formerly grew potatoes, hay and corn.

Sod growing has become big business. It is in demand by highway builders; developers buy sod to speed up the beautifying of new developments; and home owners prefer full-grown grass to sowing the seed and developing a lawn of their own.

By the end of 1966 Mr. Cacavie will have 600 acres devoted to a variety of sods. There is the straight Merion for those who want the very best; then comes the Merion mixture for those who want a good lawn but something a bit less expensive. Then come the buyers who want turf, to whom he supplies a Kentucky blue-fescue mixture.

American Agriculturist, September, 1966

NEW! SUPER-POWERED LIGHTWEIGHT CHAIN SAWS

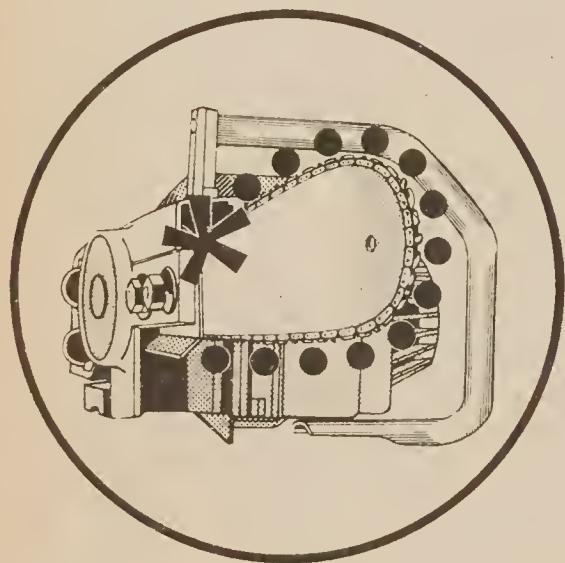
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Two New WILDCATS Built For Fast Action!

The all-new, super-powered PIONEER 11-20 adds more muscle to lightweight chain saws . . . while it reduces noise! The increased horsepower, plus perfect balance, lets you cut more wood, faster and easier, than any other 12 lb. chain saw. The revolutionary new muffler lets you do it with less noise. Built to professional standards by PIONEER . . . it's a real wildcat! For greater performance in a chain saw, try the quick, quiet, light AND powerful PIONEER 11-20.

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New dependable automatic oiling for longer chain life and friction free cutting is available on the Pioneer 11-50 model. Try both at your Pioneer dealers today!



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VEGETABLES



Fiber Pot — A variation of the fibrous pot used for years is now being test-marketed at the University of Wisconsin. It consists of a block of wood, about 1½' cube, with various size holes for seeds or cuttings. Each block weighs 4½ grams, and can absorb more than 10 times its weight in water.

The block is molded with a material that protects it against decay, and contains the nutrients needed for plant growth. As the plant develops, the roots penetrate the porous structure, and when planted in pots or in the field the roots emerge from the block into the surrounding soil.

New Cucumber — Cucumbers with less foliage and dwarf size to make mechanical harvesting possible . . . and the machine to harvest them . . . are both high on the list at the Heinz Agricultural Research Department at Bowling Green, Ohio. Dwarf cucumber hybrids have

Dates to Remember

Aug. 30-Sep. 5 - New York State Exposition, Syracuse, N.Y.

Sept. 9 - Seventh annual New York Meat Animal Show and Sale, Empire Stockyards, Caledonia, N.Y.

Sept. 12-16 - Pennsylvania All-American Dairy Show, Farm Show Building, Harrisburg, Pa.

Sept. 16 - Soybean meeting sponsored by Seneca County Extension Service, William Boyd Farm, near Geneva Thruway exit.

Sept. 17-25 - Eastern States Exposition, West Springfield, Mass.

Sept. 22 - Vermont Feed Dealers & Manufacturers Association 24th annual meeting, University of Vermont, Burlington.

Sept. 26-27 - National Dairy Congress, Waterloop, N.Y.

Sept. 26-Oct. 1 - Large Bloomsburg Fair, Bloomsburg, Pa.

Sept. 30 - American Society of Agricultural Consultants, Omaha, Nebraska.

Sept. 30-Oct. 2 - Annual meetings of SPICE, N.Y.S. Poultry Council, N.Y.S. Egg Distributors Association, N.Y. Poultry and Egg National Board, and Poultry Improvement Board of New York . . . Hotel Brickman, South Fallsburg, N.Y.

Oct. 1 - New England Angus Association Fall Sale, Gibbett Hill Farm, Groton, Mass.

Oct. 4-6 - NEPPCO Exposition and Convention, Farm Show Building, Harrisburg, Pa.

Oct. 12-13 - Dairymen's League annual meeting, War Memorial Coliseum, Syracuse, N.Y.

Oct. 20-21 - Agway annual meeting, War Memorial Coliseum, Syracuse, N.Y.

been developed that grow vines only 16 to 24 inches in length, mature in 45 days, and make two cucumber crops in a single growing season. The Heinz company is working with several farm equipment manufacturers in the development of mechanical harvesters for cucumbers.

Need for Soil Analysis — In New York State, when a new area of muck soil is opened up to cultivation, the soil is usually analyzed on a spot check basis. But the micro-nutrient content of land can vary widely within narrow confines, and copper deficiencies may be present within a few feet of an area from which a soil sample has been taken.

An example is when a new area on the Marano Brothers farm in Oswego County was opened to cultivation. Although judged satisfactory, in some sections of the area lettuce did not mature; approximately 10 acres of it was lost. After testing 12 bushels of the soil, Dr. George Raleigh, vegetable crops department, Cornell University, recommended treatment of 300 pounds of fine grind copper sulfate per acre, and treatment for future plantings. When these recommendations were followed, lettuce developed well on the entire tract.

Control of Root Rot — Dr. R. E. Pierre, scientist at Cornell University, is near a breakthrough in the control of root rot disease of beans.

He has found that the plant itself, when attacked by the fungus, develops "antibiotics." When these . . . and the plant varieties that carry most resistance to them . . . are pinpointed, it will be a big step forward in the eventual control of this devastating disease.

Hot Potatoes — Flaming potatoes is a fast-growing cultural practice. Pre-emergence flaming and post-emergence flaming controls weeds; pre-harvest flaming destroys the trash . . . or vines . . . and facilitates harvesting.

The first LP-gas flame cultivator was patented in 1852, but it wasn't until 1944 that extensive work was begun on the use of LP-gas as the fuel for the flamer.

NOW SAVE 40¢ PER BAG ON AGWAY MILK REPLACERS

It's a sure way to cut calf-rearing costs this fall. The 40c/bag discount applies to all three Agway Milk Replacers:

VEAL-N-GRO

For herd replacements or for veal, Veal-N-Gro starts calves fast and grows them fast. Veal-N-Gro has everything calves need in generous amounts. In such generous amounts

that it saves you money on top of the 40c discount. Compared with ordinary milk replacers, you need only a little more than half as much Veal-N-Gro to get calves through the critical first six weeks. In good health and at the right weight.

Veal-N-Gro is a 24%-fat milk replacer that is very high in milk product—70%. It contains antibiotics (25 mgs per lb.) to ward off calf disorders, and reconstitutes quickly in warm water.

New 4-Week Early Weaning Program featuring Veal-N-Gro, another Agway dollar saver. Ask for details.



STED-A-MILK and MILKSAVER

Either of these two popular milk replacers takes calves through to the calf-feed period at less cost than whole milk. Both are high in protein, and contain all the minerals and vitamins calves need to stay thrifty.

Order Agway Milk Replacers today to make sure of your 40c/bag discount. Ask about the new 4-Week Early Weaning Program.

Note: With the price of milk on the rise, you can save ten dollars per calf by feeding an Agway replacer instead of whole milk. Agway Inc.



DAIRY FEEDS & SERVICES

CUT MILK VEINS ARE DANGEROUS

THE BERKSHIRES hadn't looked so green in early summer in many years. The almost tropical scent of the multiflora rose flooding the car on early morning calls was a pleasant change from the choking dust of the previous five years.

The pattern of types of calls was different than it had been in several years as well. Some of this was due to weather and some not. Other than coincidence, I can't explain why we had a rash of calls to attend to cows with cut milk veins.

A tiny tear in one of the large milk veins on the cow's abdomen, or even on the udder of a well-veined cow, can cause her to bleed to death in a matter of minutes if first aid is not given. Sometimes the cause of the injury is quite obvious . . . the cow jumps a fence or wire gate and the vein is cut. However, more often than not the cause is not known. A cow may come into the barn with no evidence of bleeding, and hours later blood will start pouring out of a vein in a stream as thick as a pencil.

Sometimes it seems as though a sharp or broken hoof on a front foot has done the damage when the cow kicks at flies with her front feet. I have never seen this proved, but it certainly seems as though this is an occasional cause. Sometimes a cow will have apparently cut herself at pasture on broken glass or wire, and due to immediate constriction of the wound only a few drops of blood are shed. While in the barn, movement . . . distention of the udder due to milk pressure or relaxing of the udder due to milking . . . can change the

position of the hole in the vein in relation to the hole in the skin and cause bleeding to start.

When you see the infinitely small size of the holes that some of these cows bleed from you realize that it doesn't take much to cause trouble. The anatomy of the good milk cow . . . thin skin, huge veins with thin walls . . . make me wonder why more of them don't bleed to death. I saw one cow this spring that fell in the barn and had what in humans is referred to as a "floor burn" on her abdomen over the milk vein. After about a week this "burned" area broke just at turning-out time in the evening, and only quick thinking on the part of the owner saved her.

Quick Thinking

What is the quick thinking needed to save those cows? Most of it is good old Yankee ingenuity. When you see a cow bleeding from a milk vein it always comes as a surprise. If she is not confined, get her into a stallion or tie stall, or drop a halter on her and tie her up as quickly as possible. Then grab for that vein! Don't bother with cotton or a rag, and above all don't use wet rags . . . cold water won't stop that kind of bleeding!

Don't worry about sanitation or getting kicked . . . just grab, find the hole, pinch it shut, hang on, and call for help! One farmer held a vein from five until seven o'clock on a Sunday morning when he was milking alone until someone finally heard his shouts and came to help. Ordinarily, after holding onto a vein for ten minutes it will stop bleeding temporarily. If help hasn't arrived by that time you can at least get to a phone and call your veterinarian, or go get help.

Under no circumstances should this temporary stoppage of bleeding be considered the end of the trouble. The slightest movement can start the bleeding again. The first year I practiced I got to a farm to suture a vein and was told by the owner's father that he had stopped the bleeding with sugar and it didn't need any further attention. I went on to my next call and forgot about it. The next day I met the owner on the street, and he really laid me out for not suturing the vein. I explained that his father, who was threetimes my age, told me to leave it alone, and I figured he knew what was what. The farmer had good reason to be upset, however, for that morning the cow had been found dead at pasture lying in a pool of blood. One tiny stitch could have saved her.

What To Use

Till that stitch is placed by your veterinarian, what can you use to hold the vein shut besides your hand? A hinged clothespin is the first choice of many, and generally available (if you can call loudly enough for help, that is). The best thing I have seen so far, second only to a surgical hemostat, is the large hinged paper clip that is used to hold a sheaf of papers or to

(Continued on next page)

Eastern Means Action!

At Eastern, action means performance. And when it comes to the interests of dairy farmers, Eastern's record of accomplishment is unmatched.

GUARANTEED MARKET

Each Eastern member is guaranteed a market for all his milk . . . and often at premiums over blend prices.

Example . . . Eastern paid its members some \$15,000 when a handler with plants in Oxford Depot and Gracie, N.Y. went defunct this spring. Non-Eastern members are still waiting payment for their milk.

REPRESENTATION

Eastern speaks with a strong, clear voice at Federal hearings and before legislatures and government agencies.

Example . . . Eastern was the only co-op to speak out in favor of farm point pricing for bulk milk at the New England hearings this summer.

PROTECTION

Low-cost group rate hospital insurance, loss-of time insurance, and quarantine insurance are all available to qualified Eastern members.

Example . . . Insurance payments to Eastern members have totalled more than one million dollars to date.

SPOT CHECKS

Members are protected against loss by Eastern's mobile bulk-tank calibration trucks, by field lab and plant checks for accurate butterfat tests.

Example . . . Dairymen have received as much as \$1,000 from the milk plant for incorrect weights when farm bulk tanks were found out of calibration in favor of the handler.

These are but a few of the many helpful services that only a financially sound, debt-free, bargaining co-op can offer. For more information, write to Eastern headquarters.

Eastern MILK PRODUCERS

Cooperative Association, Inc.
Kinne Road, Syracuse, New York 13214

Food For The Spirit



by Robert Clingan

REASON FOR BEING

THERE IS a story of a little boy who moved to a new school in a new community. The first day he was supposed to bring his birth certificate. After arriving in the classroom he asked the teacher if he could be excused to return home for it. "Teacher," he said, "may I go home and get my excuse for being born?"

Seldom do we stop to think about "our excuse for being born." Another way of putting it is "our reason for being." The reasons we are here on earth are not of our own making. The reasons are bound up in the phrases of a song that was popular a few years ago: "First there is love, and then comes marriage, and then comes the baby carriage."

But this biological description of the outcome of love and marriage is only a partial and superficial answer. It fails to deal with two other issues. First, why in the scheme of things did the Maker provide for the birth of man? Why did he place us here? What purpose of God himself are we expected to fulfill?

The Bible spells it out in terms

of human growth and development. Man takes his place at the apex of creation and fulfills the measured purpose of being a creature, created in the image of God, to possess the character and spiritual attributes of God, to live a life of service... a life in which the center is outside the individual person in the life and lives of other people. Men and women are to become "Sons of God." They are to achieve maturity, and be channels for the redemptive purposes of God written into the very nature of this created world.

These are God's reasons for man's being. This is the eternal "excuse for being born."

There is another dimension to this question of "reason for being."

That is to be found in the kind of answers each person writes into his own life. We each have the opportunity of giving our life meaning. We can make our span of days upon the earth significant. We ourselves can fill our days with meaning. Thus we write our own "excuse for being born."

This does not mean achieving fame, or wealth, or power. It simply means filling our days with thoughts and activities that develop our skills, expanding our range of thought and feeling, and ministering to the needs of people around us. It means making the full contribution to the common life of our time to the extent of our ability, our vision, and our opportunity.

Few of us are people of great talent, but sometimes people of great talent, in their achievements and their evaluations, throw light on the significance of life for the rest of us. This was true when the great Russian author Boris Pasternak (author of "Dr. Zhivago") heard the American Philharmonic Orchestra play in Russia. Pasternak went backstage to the director, Leonard Bernstein. He threw his arms around him and cried out, "This was the reason you were born."

In the round of our daily lives, there are moments when we are at our best, when we have achieved, and served, and someone quietly observes: "This was the reason you were born."

Here's a proposition you can't afford to turn down.

Atlantic heating oil. Clean burning, always dependable, Atlantic heating oil is the ideal fuel for your farm. No matter what the weather, you'll get dependable deliveries so you always have an adequate supply of heating oil on hand to see you through the worst winter cold.

And you can take advantage of Atlantic's budget payment plan. You spread your winter heating oil payments over 10 months. So each payment becomes smaller, easier on your pocket-

book. And of course there's no extra charge for this service.

Now that we made our proposition, take advantage of it. See your Atlantic rural salesman or Atlantic distributor and find out how you can solve your heating problems with dependable, clean-burning Atlantic heating oil.

For quality gasoline, diesel fuel, motor oil, heating oil, kerosene... for prompt deliveries, loan of equipment, complete service... call Atlantic Richfield Company or your Atlantic distributor.



Mettler

(Continued from page 16)

clamp papers to a noteboard. Some of the artificial breeding companies gave such clips out a few years ago with a little advertising on them. These are excellent makeshift hemostats, worth their weight in gold in an emergency.

When your veterinarian arrives he can usually suture these cuts easily, but he'll need your help for a few minutes. Ordinarily, no further treatment is needed except a few dabs of healing oil to keep the flies off. Of course, there is the occasional cow that has bled so much that blood transfusions or fluid therapy is needed. Most veterinarians will recommend keeping the injured cow confined for a day or so, particularly if the pasture is rough and full of high weeds or brush. Stitches are usually put in and forgotten, letting them rot out or be covered with skin.

Prevention is quite obvious, but not one hundred percent possible. If we get rid of the junk, pick up the trash, and eliminate loose wire gates, we can prevent many injured milk veins. Proper trimming of feet is important, too, and if this is not your practice, at least watch for broken toes with sharp, dangerous "wings."

Good management covers the above, plus any other preventive measures I can think of. Even so, as long as cows are cows, we are going to get some injuries. When they do happen, don't forget to tie the cow, grab that vein, holler for help, use your imagination and, of course, call your veterinarian.



Hot proposition for cold winter nights!

SUGAR BEET REPORT

by Gordon Conklin

FIGURES from the U. S. Department of Agriculture Commodity Stabilization Service at Syracuse, New York, are available on the sugar beet industry in New York State for 1965... on a county-by-county basis. Counties involved number 16 in Central New York, ranging from Herkimer on the east to Genesee and Orleans in the west. Acres planted varied from highs of 6100.8 for Cayuga, and 2819.8 in Ontario, down to 104.9 in Cortland.

Totals for all 16 counties show 773 applications for government payment under provisions of the Sugar Act. There were 20,357.6 acres planted; of these 14,436.9 acres were harvested, and 5913.6 were eligible for "bona-fide abandoned acreage" payments.

Five comparable areas in other parts of the county were chosen and a "normal" state yield calculated on the basis of past history there. This amounted to 36.1 hundredweight of sugar per acre. The

normal yield per farm was considered to be 90 percent of this (32.5 cwt. of sugar)... and abandoned acreage was paid for at the rate of one-third of this normal yield, the one-third amounting to 64,087 cwt. in the sixteen-county area.

Average Yield

The average yield of beets figured out to 6.5 tons per harvested acre (U.S. average yield in 1962 was 16.6 tons per acre). There were 588 New York growers who applied for "approved deficiency of production" payments to help soften the blow of low yields... so growers were paid a subsidy on 138,227 cwt. of sugar that they would have produced on harvested

acreage had their yields been deemed normal.

Let's take a county and work through its arithmetic to see how the Sugar Act payments figure out. Cayuga County had by far the largest acreage... involving 272 farmers and 6,100.8 planted acres, of which 5,285.1 acres were harvested and 815.7 were abandoned. Harvested acreage put 31,813.4 tons of beets into the refinery (yield of 6.0 tons per acre), and these beets were converted into 84,577 cwt. of sugar.

Keep those "hundredweight of sugar" figures in mind, because they will eventually be accumulated to calculate Sugar Act payments. Farmers, of course, were paid by the Empire State Sugar Company for the amount of sugar produced.

Abandoned Acres

There were 60 Cayuga County farmers who applied for "bona-fide abandoned acreage" payments, involving 815.7 acres. Remember that 32.5 cwt. of sugar I described as 90 percent of normal yield? The 815.7 is multiplied by 32.5, and then one-third of this result gives a figure of 8836.2 cwt. which was added to the total on which the sugar subsidy would be paid in the county.

Finally, 239 Cayuga County farmers applied for "approved deficiency of production" payments. Here the calculation involves starting at 80 percent of the farm "normal" yield, which is 32.5 times 80 percent, or 26 cwt. of sugar per acre. Thus, if a farmer produced only 10 cwt. of sugar per harvested acre, he applied for payment on the 16-pound deficiency. Cayuga County had a total of 54,315.2 cwt. in this column.

Addition

Sugar Act payments to farmers in the county, then, were calculated by adding three figures... 84,577 cwt. of sugar produced; 8836.2 cwt. that represented one-third of what would have been produced on abandoned acreage; and 54,315.2 cwt. that would have been produced on harvested acreage if yields had been up to par. This totals 147,728.4 cwt. and the subsidy amounts to 80 cents per cwt. or a \$118,182.70 sugar subsidy to Cayuga County growers.

Comparable figures for the entire growing area in New York are: 254,530.5 cwt. of sugar actually recovered from beets... 64,086.6 cwt. of sugar representing one-third of normal yield on abandoned acres... and 138,227.4 cwt. in the "deficiency of production" column. For subsidy purposes, then, government payments (totaling \$365,475.62) were made on 254,530.5 cwt. of sugar in the bin... and on 202,314 cwt. that "might have bin."



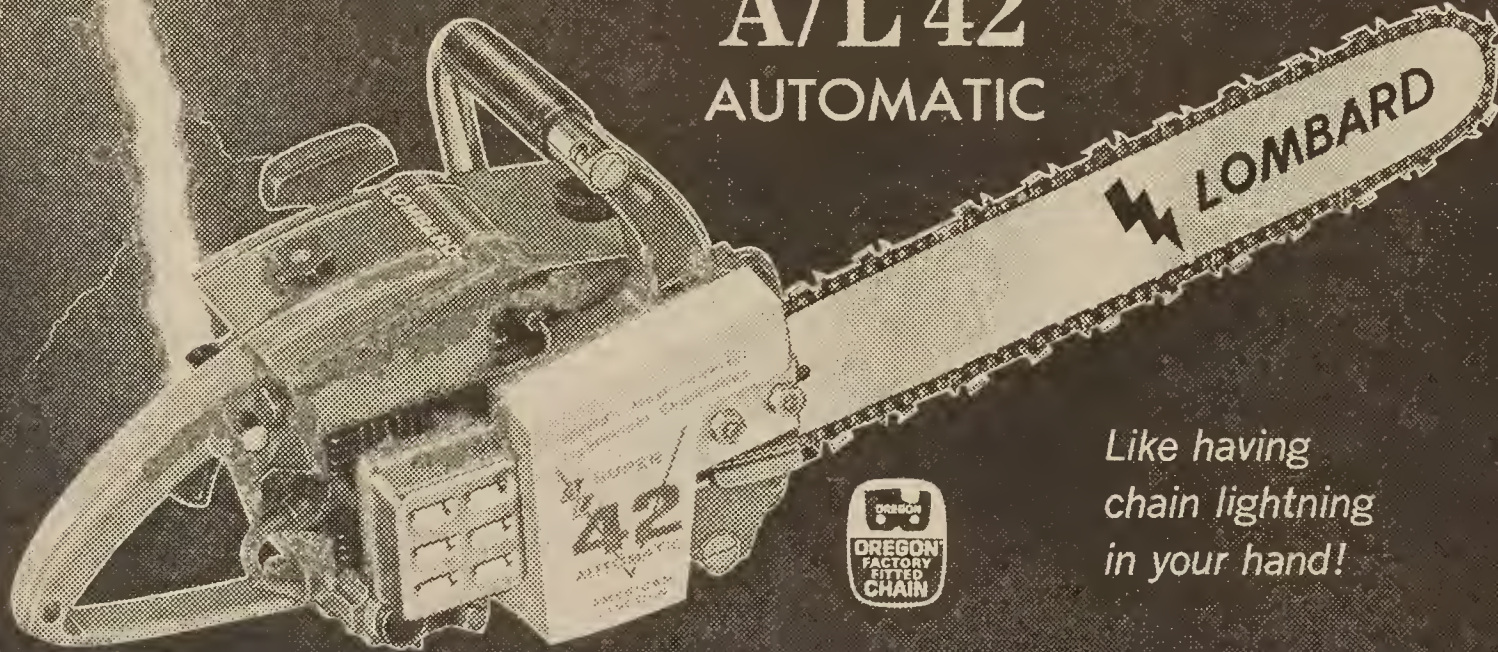
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Not being the biggest, Lombard tries extra hard to give you more for your money in a chain saw. Extra features like the two oiling systems on the new SUPER A/L 42 AUTOMATIC—a GUARDIAN Automatic Oiler, as well as a Positive-Action Manual Oiler—that keep the self-feeding, self-cleaning OREGON chain cutting fast and smoothly in all kinds of wood. Extra-hot 17,000 volt ignition, with magneto, points, coil and condenser fully enclosed for quick, easy starts in all kinds of weather. Extra power and speed are built into the revolutionary AMERICAN-LINCOLN "jewelled" engine, that has needle and roller bearings throughout for smoother operation and extra-long life. Extra performance because all-position carburetion and oversize air filter assure full power in any cutting position. Extra fuel capacity so there are fewer re-fills. Extra safety in the spark arresting muffler. Extra convenience because of grouped controls. Frankly, all four LOMBARD Lightweights—the A/L 42, SUPER A/L 42, SUPER A/L 42 AUTOMATIC, and the new SUPER A/L 51 AUTOMATIC offer so many important extra features you have to try them to believe it. Before you buy any saw, be sure to try a LOMBARD—the lightweight saw with extra value built-in.

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News and Views from NEW YORK AND PENNSYLVANIA

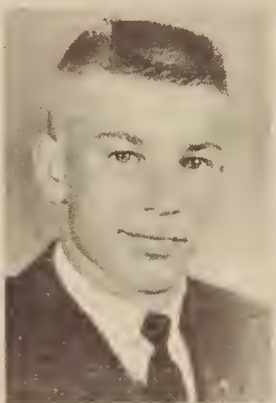


Apple Marketing Order - Once again the marketing Order for apples has been challenged, and upheld by the New York State Supreme Court. The Court declared that the Order is "constitutional in all respects and legally valid and proper."

Computer Age - Pennsylvania farmers are now having the opportunity to hire "an electronic bookkeeper." The new service offered by the College of Agriculture at Penn State is called the Agricultural Records Program, and is available to all farmers on a fee basis. The farm records are entered in a record book similar to a daily journal, then sent to the College for processing.

The cost is proportional to the amount of information received . . . as a general rule ranging between \$80 to \$110 per year. The Pennsylvania Agricultural Records Association (a non-profit organization) will be in charge.

4-H Record - A 4-H'er who is continuing an outstanding 4-H record is Jack C. Bossard, Canisteo, New York. He was chosen as one of 11 "Reporters to the Nation," representing 2 1/4 million 4-H members, and told the 4-H story to people in business, government, industry, and education in Georgia and Alabama.



JACK BOSSARD

National Honors - Pennsylvania State University was first, and Cornell second among all U. S. land-grant universities in the number of top awards at the Golden Anniversary Conference of the American Association of Agricultural College Editors. Honors were conferred for films, television and radio programs, publications and exhibits.

Stolen Dogs - Regulations aimed at ending the traffic in stolen dogs have been made tighter by the Pennsylvania Agriculture Department. Kennel operators selling dogs now will be required to maintain complete records and copies of bills of sale on all dogs for a period of two years. This will make it possible to trace the origin and destination of dogs bought and sold by kennels . . . and will make it much more difficult for dognapers to dispose of stolen animals.

SPICE - The Hotel Brickman, South Fallsburg, New York, will be headquarters for the annual meetings of all New York State related poultry organizations of SPICE . . . New York State Poultry Council, New York State Egg Distributors Association, New York Poultry and Egg National Board, and the Poultry Improvement Board of New York, Inc.

The dates, September 30 through October 2. Wives are especially invited; and there will be sports, a banquet, and entertainment galore.

To Head ADA and DCN - John W. Sliter, North Greenbush, New York, became assistant general manager of the American Dairy Association and Dairy Council of New York on July 1. When Carl C. Camenga retires on January 1, Mr. Sliter will assume the responsibilities of general manager.

John is the third generation of Sliters to be active in the dairy industry in the Troy area. He was born and raised on a dairy farm, and joined the staff of ADA in 1961.

Engineering Technicians Needed - Professor E. W. Foss of the New York State College of Agriculture says there is a growing need for agricultural engineering technicians . . . and instructors also are needed for agricultural mechanization workers at the skilled level. "We have job opportunities for two to three times as many graduates as we have," pointed out Mr. Foss. He feels that more training activities such as in-service

training programs, seminars, workshops, and technical information published in the form of a news letter would help keep mechanics and technicians up to date on changes in their fields.

A New Program - A new program of study with a major in horticulture has been adopted at The Pennsylvania State University. The various beginning courses have been integrated into a three-course sequence; new and revised courses have been prepared in plant nutrition, plant breeding, propagation, etc. The new program gives a student a strong background for graduate training in any of the plant sciences.



Look at a new Nuffield this way—

from the new, easy-to-read instrument panel to new ten-speed gearbox, better-than-ever Nuffield diesel tractors have everything you want. High horsepower hours/gallon ratios. Improved hydraulic system with automatic depth control. New drawbar with dual hitch points for the lower draft links. And a competitive selling price that puts a

Nuffield with plow and tools on the ground for the cost of most comparable tractors alone! New Nuffields—quality-built by famed British Motor Corporation—are brought to the United States by Frick Company. Try one before you order another tractor. Just write to us for free facts and the name of your Nuffield dealer:



FRICK COMPANY
Dept. 0096, Farm & Forest Machinery
Waynesboro, Penna. Nashville, Ga.

Personal Farm Experience

LOTS OF SPUDS

In addition to caring for a herd of 45 milkers, we grow 60 to 70 acres of potatoes.

We have been trying something new. In the spring we use a disk to cut up the sod, then plow and plant potatoes without harrowing. The rotation is hay-potatoes-oats.

To do this, you must do a good job of plowing. We use a five-bottom plow. Fields have a considerable slope, and we plow across the field on the contour, then at the end go up the slope some distance and plow the other way.

If you follow this, you will see that for a considerable width of field the furrows are all turned one way. In one strip all are turned downhill, then farther up all furrows are turned up. This makes it easier to get an even field for planting.

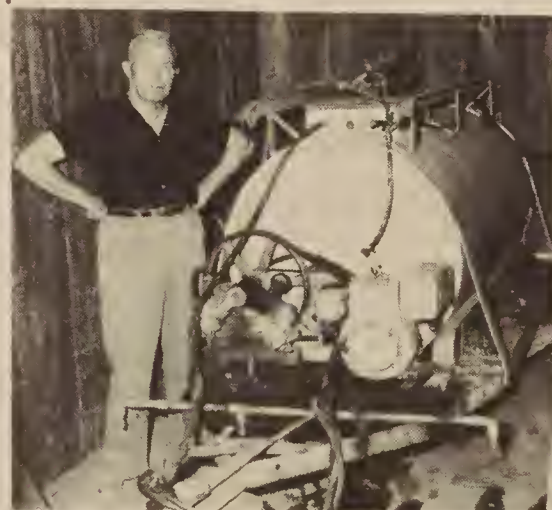
We grow Kennebecs for chipping, contracting part of the acreage and gambling a bit on the balance. Planting begins around May 1, and a chemical weed killer is put on just before they come up.

We cultivate two or three times and apply around a dozen sprays, including one in the fall to prevent sprouting in storage, followed by one to kill the vines. After the vines are dead, we wait a couple of weeks before digging.

We do not have a potato com-

bine. We use a two-row digger, and use from 30 to 50 migrants to pick up the spuds.

Our storage house holds around 20,000 bushels. Beginning in December and ending in March buyers come for potatoes with trucks. — *Ed and Gene Kosa, Ulysses, Pa.*



Jim Hazlitt and weed sprayer built by son Jerry.

LIKES DUST

We use dust rather than spray on 100 acres of grapes and 15 acres of tree fruits, including McIntosh apples, prunes, sour cherries, peaches, and pears.

If I had to spray tree fruits I would get out of that part of the business as soon as possible. The materials for dusting cost more than sprays, but savings on equip-

ment and time more than make up the difference! We are dusting something just about every day. We have two dusters, one for grapes and one for tree fruits. I feel that the advantages of spraying have been overemphasized, and those of dusting neglected.

Some growers claim that sprays give better control of diseases and insects, but we get satisfactory control.

Weed Control

We do spray to control weeds, using a sprayer my son Jerry put together in the farm shop. He used a 300-gallon gas tank, equipped it with an agitator, and a gasoline engine to run the agitator and supply the pressure.

We do spray occasionally with Ethion for mites, and then I rent a sprayer from a neighbor.

We sell some fruit, including grapes, to customers who pick their own, and we sell some fruit at a stand.

As I see it, fruit growers are in danger of overplanting. Surely we have had so many sour cherries that it was a buyers' market. I'm not a big apple grower, but I feel that Macs were overplanted some years ago, and there may be too many Red Delicious being set now. I am afraid, also, that too many Concord grapes are being set. It looks to me as though every farmer should have a market before he grows a crop.

We recently set out 8 acres of grapes. Fortunately, we had about

half posts enough from locust trees that we set out in 1937. We figure that by the time we get a crop of grapes we have an investment of around \$500 per acre. — *Jim Hazlitt, Hector, N. Y.*

FRUIT GROWER

As the years go by we tend to grow fewer crops. We quit tomatoes 8 years ago, mainly because of trouble in getting workers. We have a few peaches and a few pears, but we depend mainly on 75 acres of grapes and 10 acres of apples.

The grapes go to Welch, but the apples are sold locally, a large part to customers who come to the farm. However, some are sold at the farm to truckers, and I supply three local stores.

We have one cold storage room, and the balance not sold in the fall are kept in common storage. The selling season is from September to February. We aim to clean out the crop before controlled atmosphere apples come on the market.

Northern Spies are a good variety for us, and we are setting out more. We also have some Wellingtons, an early apple that we pick before grape harvest. We are set-



Hamilton Clothier

The New

DION self-unloading forage boxes



NEW

TEN SPEED UNLOADING

FORWARD AND REVERSE

THE RIGHT SPEED

FOR

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Standard 6' High Rear Door Equipment

The change for front to rear unloading is made so fast that it is possible to use the Dion unloaders every day for zero feeding, filling silos and unloading bales.

18" Diameter Cross Auger

A larger diameter auger is supplied as cross conveyor, insuring positive side unloading. Wear, maintenance and adjustment are reduced to a minimum.

Unloading on Right or Left Side

The Dion Self-Unloading Forage Box can be equipped with right or left side delivery to suit your special needs. Standard equipment includes an extra clutch controlling the beaters.

Hardware Kit

Kit and plans for building the box are available for even greater economy. Standard sizes of lumber are used. The front end is supplied completely assembled, greased and factory run-in for long, trouble free operation.

for more information send this coupon today to:

DION FRERES, INC.

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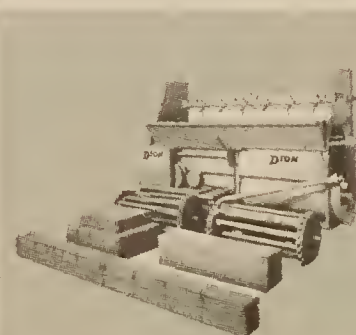
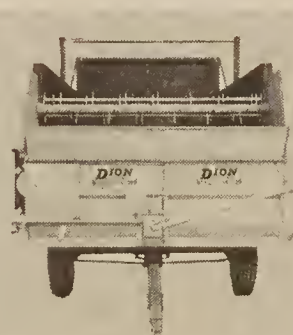
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☐ I am a Student

☐ I am interested in a Dealership



ting semi-dwarf Spies 15' x 18'. They are easier to care for than standard trees, and come into bearing earlier.

I am interested in mechanical grape harvesting. I have retrained two acres on the Geneva double curtain... it can be done in a year. The crop the next year is about the same, but the second year it may be 25 percent or more higher because of increased leaf area. The State average yield for grapes is 2½ tons per acre, but many growers get 4 tons, and occasionally up to 6½ tons. — *Hamilton Clothier, Silver Creek, N. Y.*



Mr. & Mrs. Ed Hamlet

ROADSIDE SALES

Much of what we grow on 160 acres is sold at our roadside stand, which we keep open the year 'round. We also have 2 greenhouses, one 21' x 100', the other 16' x 122'.

Flower plants are important, including 4,000 dozen petunias... plus geraniums, fuschias, and others.

The crop from 3 acres of asparagus goes quickly, and in season we dispose of 30,000 dozen ears of sweet corn. Other crops include melons, cukes, beans, etc. for the stand, plus 30 acres of grapes.

We have one full-time man, and help in the summer equal to 2½ men.

Our location is excellent, on Route 20, but we plan to stop customers by an attractive stand which is neat and well decorated with flowers in hanging baskets.

Needless to say, if you want repeat customers you must have quality products priced to meet competition. — *Edward Hamlet, Sheridan, N.Y.*

PLAN EXPANSION

This is a father-and-son partnership on a dairy farm. We have a problem because we want to hire a full-time man on a business that is too small (50 milkers) to warrant the move.

You might be interested in our experience with "challenge feeding" of the herd. It works. We started last fall, and since then the rolling herd average (in June) has increased by 800 lbs. per cow.

We feed feeding rates up to 20 to 25 pounds of grain a day before freshening. For the first 4 months they get all the grain they will eat (usually up to 30 lbs.), then they

are fed by DHIC recommendations.

We recently cut the acreage of pasture. The cows get considerable feed from pasture for about 10 days, and then they go on full barn feed. We grow 32 acres of corn, and have put corn on one field for three years running.

I might add that, in our plans for the future, we are leaning to a conventional barn with a milking parlor. — *Robert and Jared Worley, Forestville, N.Y.*

COWS AND SPUDS

One of the disadvantages of farming in Connecticut is high land values, and the consequent high taxes, which on this farm total

more per year than my father paid for the farm.

Still, we grow 50 acres of potatoes and keep a milking herd of 48 purebred Holsteins. However, we are practically surrounded by houses, and my brother Theodore and I have just bought 84 acres about 4 miles away and expect to move all our operations there.

We started with purebred cows about 20 years ago. Some dairy-men say that grades give just as much milk, but it's more fun to keep purebreds. Besides, you are building up an estate against the time when you sell out.

The cows average 15,000 plus pounds of milk a year. We feed according to DHIA recommendations — up to 30 pounds of grain

per day, and we raise all the roughage.

All replacements for the herd are raised. What grain and hay the cows leave are fed to the young stock. Maybe you can buy replacements as cheap as you can raise, but it takes less cash to raise them, and you don't pay it out all at once.

We also grow 50 acres of potatoes, irrigating where we can about 3 times, an inch at a time. On the new farm we will use city water until we can build a pond.

Our full-time work force is myself, my brother Theodore (who also delivers mail) and my nephew, plus local help to dig and grade. — *Leon Kaminski, Rockland, Conn.*

"Lew Barden, where'd you get that new barn?"

"And all that automated equipment?"

"They contract the whole job?"

"How did it turn out?"

"Agway."

"Agway, too."

"Everything from the planning and blue-prints right on through to erection of the building and silo and installation of all equipment."

"Everything is working fine and Agway has local service for every piece of equipment in my barn."

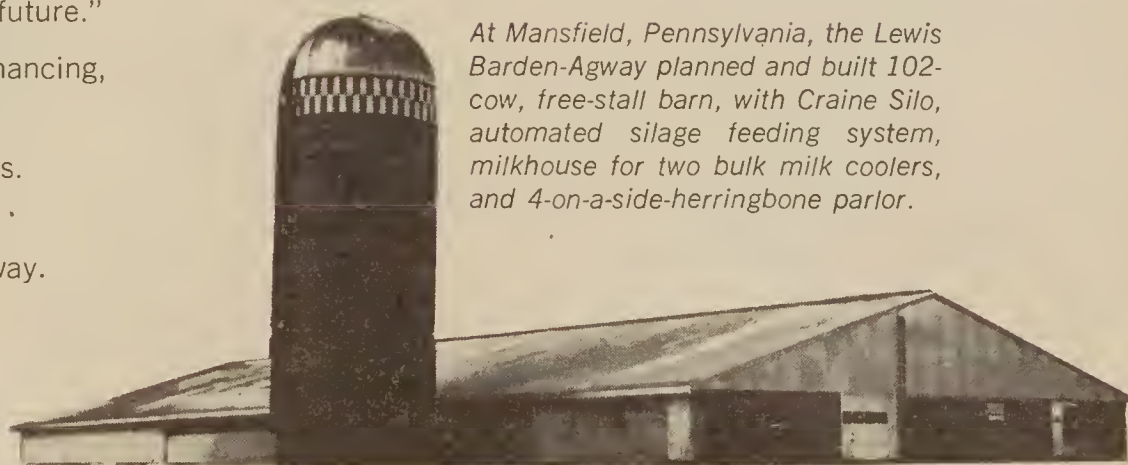
He said it last year. He says it today.

"After my barn burned down I found that Agway was the only place that could give me the kind of modern free stall system I needed, planned and put together by people who are interested not only in buildings and automation, but also in the success of my farm operation as a whole. And they know the kind of farming my son and I want to do in the future."

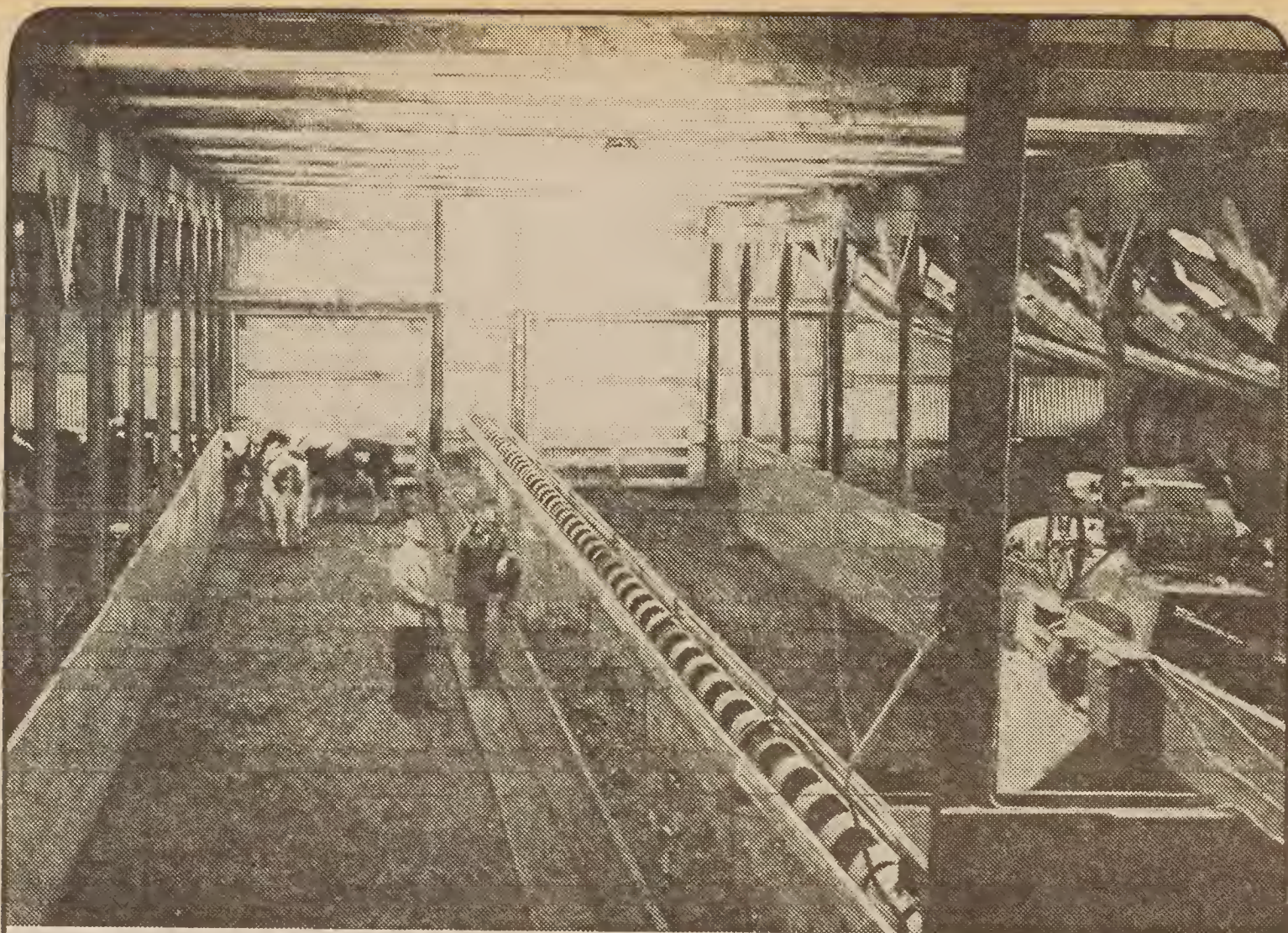
From picking the site, through financing, to putting on that site exactly what you want and need, Agway takes care of all the details. For your new automated system, make your first move in the direction of your local Agway. Agway Inc.



FARM AUTOMATION SERVICE



At Mansfield, Pennsylvania, the Lewis Barden-Agway planned and built 102-cow, free-stall barn, with Craine Silo, automated silage feeding system, milkhouse for two bulk milk coolers, and 4-on-a-side-herringbone parlor.



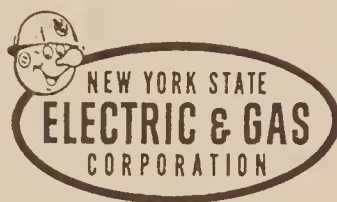
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New, modern lighting methods around your farm can prevent accidents, brighten up working conditions and promote cleanliness.

Your animals will feed better and produce more in bright, well-lit surroundings.

Our Farm Service Representative can save you time, work and money by helping you plan your farm lighting. So get together with him... come out of the dark and light up! There's no cost or obligation.

Call him at our nearest office. He's always ready to advise and help you farm better... electrically.



OUR MAN WILL HELP YOU PLAN

540

NEW YORK LAWS

Workmen's compensation coverage for farm workers becomes mandatory as of October 1, 1966. Test of being subject to this requirement is whether farmer has paid cash remuneration to his farm laborers in aggregate of \$1200 or more in calendar year.

"Agricultural Truck" classification can be applied to trucks with gross loaded weight of 30,000 pounds... an increase from the 24,000 pound maximum formerly in effect.

Milk dealers have long been required to be bonded, or place assets in an escrow account, to protect dairymen from suffering financial loss if the dealer is unable to pay for milk delivered. New law requires Commissioner of Agriculture... as soon as dealer is unable to meet requirements of financial security laws... to put notice of this fact in newspapers serving area involved, and to notify dairymen shipping to the dealer.

Annual inspection of every motor vehicle registered in New York State is required by a law becoming effective on October 1, 1966.

Additives to cream and sour cream... approved by the Commissioner of Agriculture... are now legal.

Custom slaughter is exempt from inspection when slaughtered for owner's own use... whether at the farm or in a slaughterhouse.

Farmland assessment bill mandating that land being used for farming must be assessed on basis of agricultural uses rather than on potential development value... this one died in the Senate.

Milk standardization is legal in New York State beginning November 1, 1966 on an optional basis. It allows addition or withdrawal of fat in milk so that standardized product can be offered consumers.

SOYBEAN MEETING

Farmers and industry people will have the opportunity to take a new look at current cultural practices and market outlook for soybeans in New York State at the Bill Boyd farm on September 16.

Mr. Laurel C. Meade, President of the American Soybean Association, will discuss market potential for soybeans; Dr. H. A. MacDonald, Agronomy Department, Cornell University, will discuss current cultural practices and research that is underway; Dr. Neil Rutger, Plant Breeding Department, Cornell University, will show his variety plots.

The Boyd farm is located one-half mile east of Route 14 on the old State Road just south of Geneva Thruway Interchange No. 42. Watch for signs. The meeting is scheduled to start at 2:00 p.m.

American Agriculturist, September, 1966



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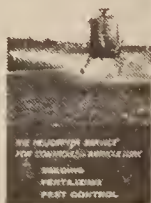
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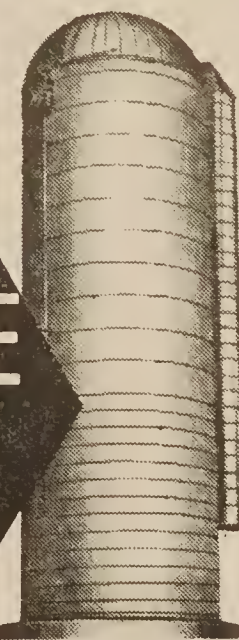
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FARM DOLLAR GUIDE

BLEND PRICE in the New York-New Jersey milkshed is predicted by Market Administrator Pollard to average 66 cents higher for the last six months of 1966 than the same months of 1965. Predicted June-December 1966 blend average, \$5.21.

FARMERS ARE UP IN ARMS over Administration attempts to fasten blame for inflation on agriculture. Charles Shuman, AFBF president, says: "Far from being the cause of inflation, farmers have been its chief victims." Mr. Shuman emphasizes that only government can prevent or cause inflation, and that a rise in prices is the result of inflation, not its cause.

GAS EXPLORATION LEASES are often signed by landowners for one dollar per acre per year. Many leases include rights for underground storage of gas at same rate. Some experts claim that this rate is too low for storage privileges, and that landowners should insist on negotiating separate leases ... one for exploration and another for storage.

SECRETARY FREEMAN recently announced the major provision of the 1967 wheat program, designed to assure needed increases in production and raise income to producers. The price support level will be \$1.25 per bushel, and the domestic marketing certificates on an estimated 520 million bushels will be valued at the difference between full parity as of July 1, 1967 and the \$1.25 loan value. The certificate issued will represent ex-

pected production on 40 percent of the farm allotments on cooperating farms. There will be no acreage diversion program for wheat. Your acreage allotment will be up about 15 percent.

AVERAGE USEFUL LIFE of farm equipment is lengthened 10% by adequate storage. Repair and upkeep costs are normally lower, and a farm shop at one end of the machinery shed makes a convenient, comfortable place for making winter repairs.

CORN SILAGE as the only roughage for dairy cows can result in deficiencies of phosphorus, protein, trace minerals, vitamin A, and possibly vitamin B. However, a proper feed supplement can lick the problem.

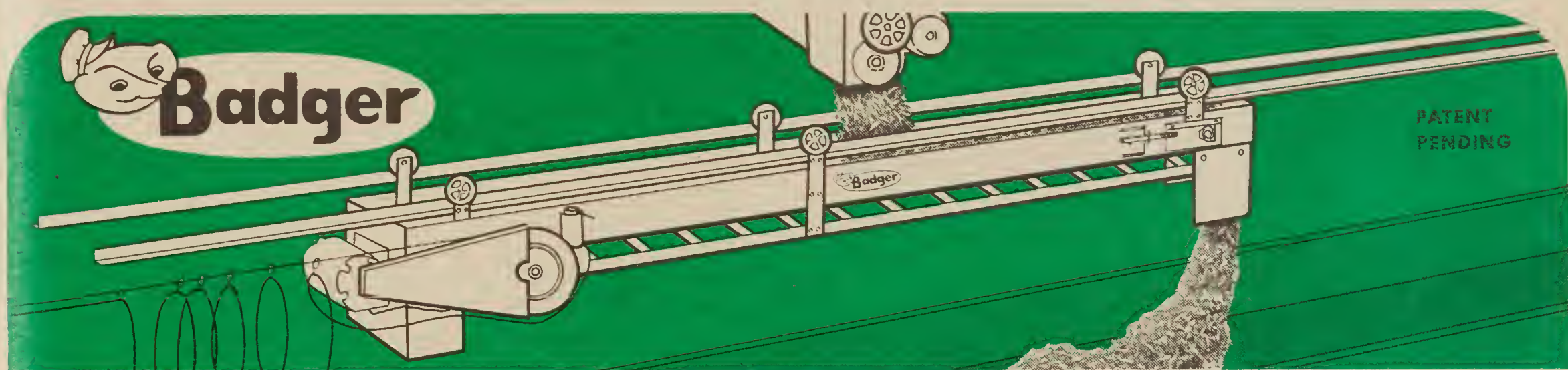
The Song of the Lazy Farmer



'Most ev'rything 'bout summer's good, I wouldn't change it if I could; I dislike just one thing it's got, and that is it's so dang-blamed hot. But even heat is not so tough for anyone

with sense enough to follow Mother Nature's tip and operate at slower clip. When temperatures begin to boil, no animals or birds will toil, you don't see much life anywhere; the hens are holed up here and there, you won't find cows upon their feet... they're in the shed away from heat, and pigs are in their wallows cool, it's only man that is a fool.

That is, most men are fools but me; why, right from here I plainly see my neighbor and his hired man out working just as hard's they can. I'd feel some pity for those guys, 'cept they need not be so unwise, 'cause all they have to do is look at me and borrow from my book. Whene'er the sun begins to scorch, I settle down upon the porch, and I don't move at all, by gee, except to pour some more ice tea. But they are out there dripping sweat, it burns me up to watch, and yet it also cools me to behold, because it makes my blood run cold.



NEW! Self-Propelled Bunk Feeder!

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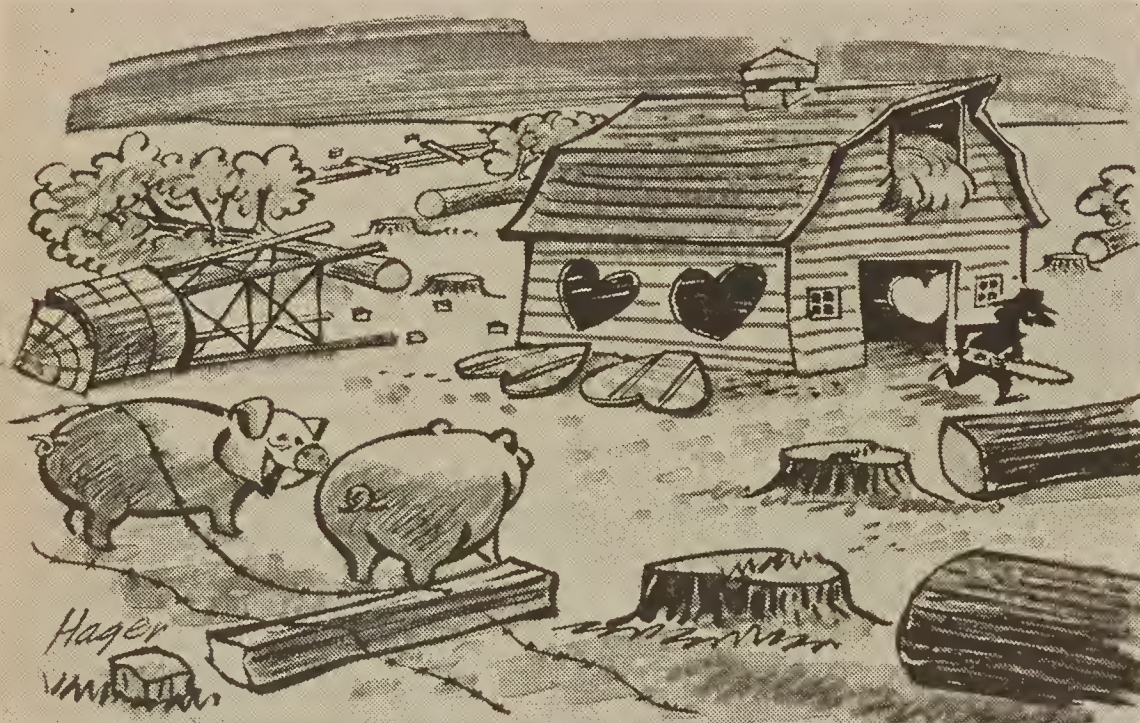
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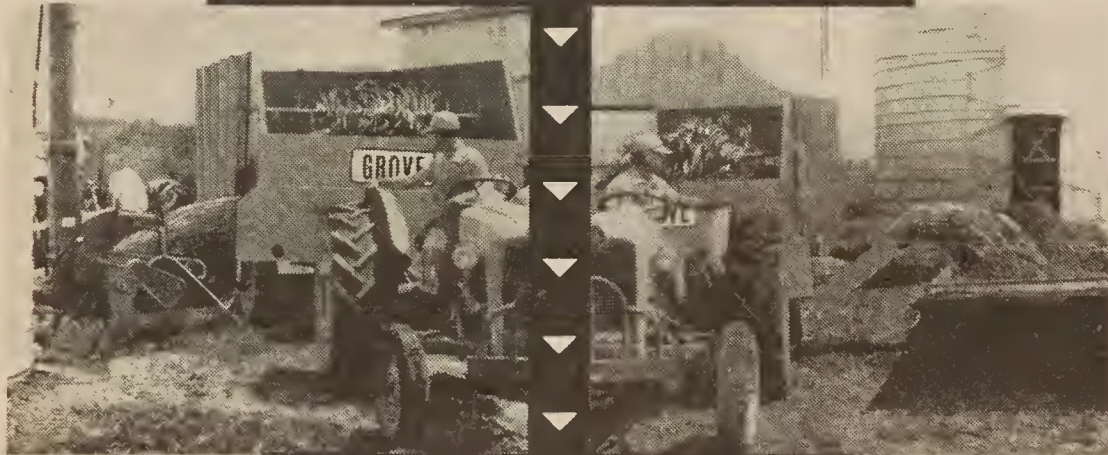
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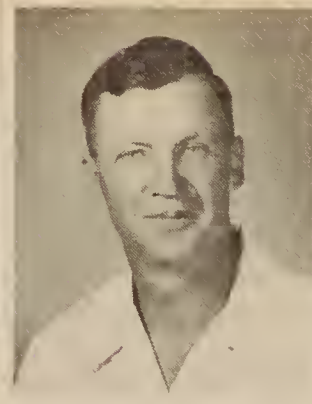
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Gayway Farm Notes

by **HAROLD HAWLEY**
Weedsport, New York

FARMING AT 1,000 FEET

On a recent Sunday, the Soil Conservation District arranged to have members of the New York Flying Farmers be at our local airport. Farmers and their wives from the area were invited to take a flight over their property and to observe some of the Soil Conservation work done in the area. This was an entirely different thing than a flight on a commercial airline. These trips were to and over a particular farm or area, and it was amazing what we saw that we miss from the ground.

We had nitrogen put on our wheat as usual this spring. From the air it was easy to see where the rig made each pass across the field. What we hadn't observed from the ground was that there was some lodging wherever the rig went and for about three or four feet each side. The farther from the rig, the less the lodging until we approached where the next pass was made. After seeing this on our fields, we watched for and saw the same thing on a couple of other farms. We've not yet figured out the cause, because the nitrogen was sprayed on. If it had been spread on as pellets with a spinner we would assume poor distribution. Obviously, that's what we got with the spray boom, but we haven't figured out why unless maybe the applicator wasn't using enough pressure.

Any sags, wet spots, and clay knolls could be spotted afar off. Right then and there I resolved never to buy a farm without first flying over it. Fifteen minutes overhead could tell one some things he might miss even if he walked a whole farm. Possibly of even greater importance was the drainage pattern. This is so much more obvious from the air. Really, here is a tool which could be pretty useful to a lot of us if we remembered to use it when looking over a new farm or possibly in planning some changes right at home.

We took a swing over farms within four or five miles of home. I thought I had hunted over a lot of that country at one time or another and therefore knew it a little. I was totally unprepared for the number of small ponds and swamps scattered throughout the region.

Back on the ground we took a look at a field of wheat on which alfalfa seed was air-sown last March long before the ground was firm. We've almost never been able to get our seed on when we would like (by March 25) unless we walk it on with a wheelbarrow seeder. Next year we certainly plan to give someone a chance to quote

us on the cost of air-seeding our grass seed.

One other thing about this flight surprised me. I had thought that at low speed and low altitude one could spot most anything on the ground — trees notwithstanding. Not so! A group of our heifers escaped our notice. Later, ground inspection showed them to be in a patch of trees, apparently completely screened off from above.

OATS — PAST AND PRESENT

Last year the oats we put in for silage in July came on to develop a modest grain crop which we combined in September. We thought that was pretty good, but others have said this wasn't unusual. This year the alfalfa which was seeded with the oats a year ago had a few volunteer oats in it. Volunteer wheat in new seedings we have always had; volunteer oats were a real surprise, because I assume it means the seed lay over all winter and germinated this spring, or else some plants which were started last fall were able to survive the winter and came on to grow and form seed this spring. It's always amazing how much happens that's really not supposed to, and usually without violating any rules except some crazy notions we have formed as to what is "normal".

MORE POWER

The spectacular new big look in tractors which results in one man plowing with six, seven, or even eight bottoms is apparent to all. It's all a part of the almost revolutionary change in agriculture. This is but one of the more obvious manifestations of the increase in power per man.

We are all aware of the terrific step-up in the horsepower of the new cars and trucks. Needless to say, we aren't quite so sure of the need for all this extra wallop as we are in the case of the tractors, but it's there anyway.

Naturally, the power step-up also continues in the self-propelled tools. However, on and off the farm these are but the beginning. It goes without saying that no lawn is too small for a power mower . . . which change brought about quite a step-up in horsepower. Of course, when the master graduates from an ordinary power mower to a riding job, he is immediately in command of more horses.

The family garden, especially in suburbia, is now tended with

American Agriculturist, September, 1966

large or small, simple or sophisticated power equipment. Winter's snows yield to the authority of the engine-powered snow plow or snow blower.

The power plant in the typical family's boat has gone from a strong back pulling on two oars to outboard and inboard motors of whatever size and power the family budget can (hopefully) stand. Even at the golf course, the man with the clubs has power at his command — if not on the tee, then as he rides down the fairways.

All this, of course, totally ignores the multitude of electrical motors found in even the most humble home... not to mention the shop and barn.

It's become literally true that even an urban family has more horsepower at their command today (even excluding their saddle stock) than did full-time farmers a generation ago. As for the step-up in the energy available to today's commercial farmer — well, the figure is simply astronomical.

Even if we make no mention of all the commercial non-farm power in industry, we have an impressive picture. This is one of the facets of the American success story which has made us the most powerful nation in history.

IT'S "IN" THESE DAYS

A new expression came to our attention the other night. Planning is an "in" word these days, said the man. How right that is, too. Has there ever been such a list of agencies and committees and boards as now exists to plan for the future of our communities, our land, our water, etc. It's high time, too... and all for the best if local people take the initiative and do the work, probably with some guidance and co-ordination by the professionals. This can easily be another case like zoning where too many of us will do nothing, because planning and zoning sound like control and loss of freedom to a great many people. To do nothing and not be a part of the planning means that by default we let others do it... because it will be done with or without us.

I've felt pretty badly that farm people who, it seems to me, have more to gain by zoning and land

use planning than anyone else, seem to shy away because of this fear of "control". Actually, I'm much more concerned about the implications of unrestricted land use which involves everything from junk yards, highways, etc. to sprawling real estate development, and to absorption for recreation facilities right on through to the tax implications to all those in a community involved.

If people are allowed to build in strings along the main highways, it becomes mighty expensive to service such developments... and the farm land in those townships will be carrying a big share of that additional cost. Ultimately, this hit-and-miss building will

result in some new looks at farm land assessments, to the detriment of those wishing to continue as farmers. By the time that happens it will be pretty late to do much about it. For most of us, the proper time to worry about our future is now — and the place to start it on some of these planning committees and zoning study groups.

PHEASANTS

Never since we were youngsters have we seen so many adult pheasants winter over and be available for the nesting season. Never since we can remember have we gone through to midsummer with-

out seeing several broods of young pheasants. This year, to date, nary a chick. It's only a guess, but we assume that the late, cold, wet spring was pretty rough on the nesting and hatching routine. Hopefully, the hens started over again with another hatch, and perhaps we'll see a lot of late-hatched birds running around yet. Let's hope so! It's been a long hard pull to get a decent carryover of breeding stock, and this spring it looked as though happy days were here again until the weather turned so unfavorable for a hatch. I'd like once again to see us get to where pheasant hunting was a little more shooting and a little less hunting than it's been for several years.

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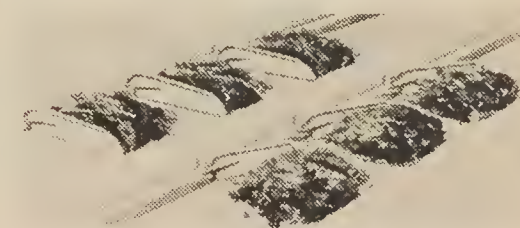
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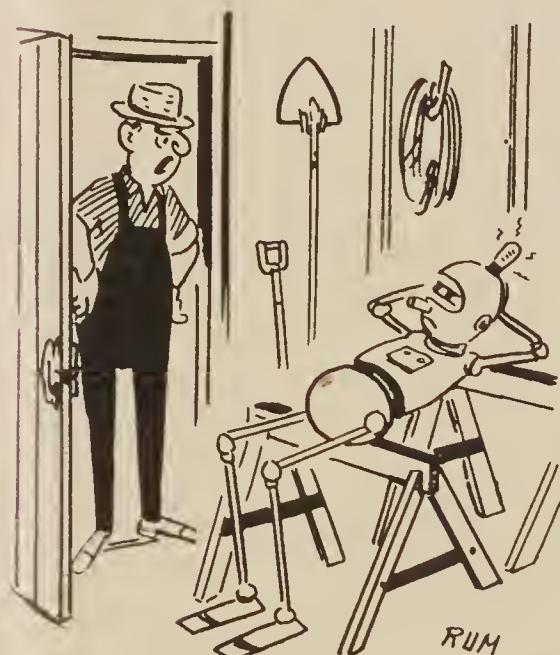
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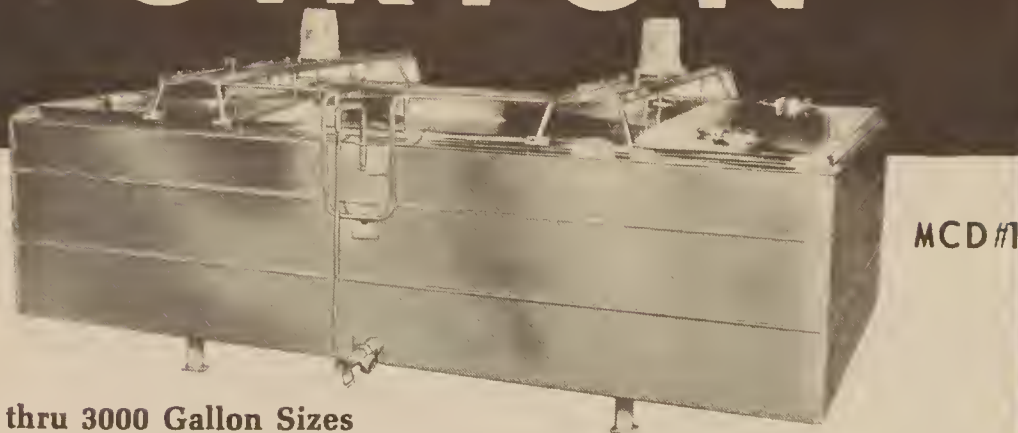
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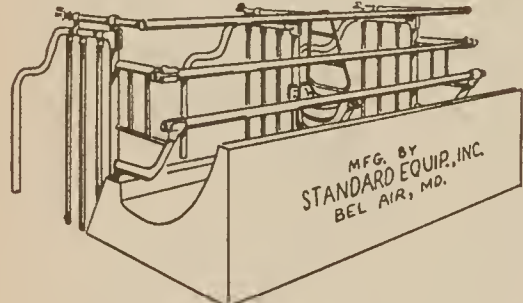
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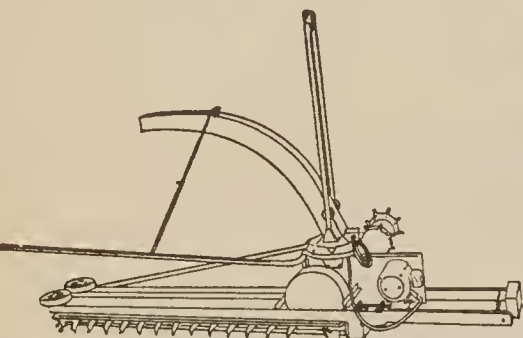
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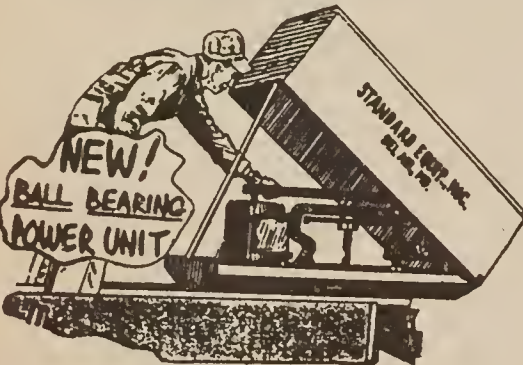
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AT LESS THAN WHOLESALE

Egg Markets...

WHO'S YOUR COMPETITOR?

by Johnny Huttar*

WAS IT Napoleon who said, "Never underrate your enemy?" I can't be sure, but it sounds like him, doesn't it?

When the poultry industry was back in the stage where every farm kept a flock of chickens, farmers gave no thought to who was competing with them for markets. It wasn't important. Some had a dozen chickens, some had fifty and some had as many as 200 to 300.

Then came the trap-nest, incubators, artificial lighting, and balanced rations . . . and we had a commercial egg industry. In the 1920's farmers began keeping flocks as big as 5,000. In the 1930's, 10,000-bird flocks were no longer news, even though they were not common.

Well, you know what has happened since. In California, a poultry farm called Egg City has a million hens . . . and Fred Adams of Edwards, Mississippi, tops that by another quarter million. Of course, these are still rarities, but 100,000-hen farms are now as common as 10,000-hen farms were in the '30s.

What About Size?

Some folks think that these mammoth farms have a big advantage over everything smaller. I haven't found it so. It's true that, whenever egg prices are reasonably good, even a very small margin per dozen adds up to a good income in total on the big places. On the other hand, a six month's period of low prices, like we had a year ago, add up to some sizable losses on these jumbo farms.

True, the big fellows have some cost advantages. They may save \$2 or even \$5 a ton on their feed compared to the price paid by a well-run family farm of say 20,000 hens. To this you can add a few other small savings . . . I've seen it add up to as much as 30 or 40 cents a hen. But I've yet to see one of these really big outfits get the production or livability or feed conversion to match a good family-operated operation.

They are more likely to fall one to one-and-a-half dozen eggs per hen short for a year's lay. Mortality generally runs higher, and it's common to find that they use 1/4 to 1/2 pound more feed to produce each dozen eggs. They just can't seem to get as sharp flock management out of hired help as a father and son and a couple of children achieve. Add these differences up and the annual net result will be nearer 50 to 60 cents a hen in favor of the family farm.

The way it looks to me, as I get close to these different operations, the advantage is still with the well-run family farm of 10,000 to 50,000 hens, with not much difference between these limits.

Another thing which is gradually becoming a way of life in the

business of egg production is this thing called vertical integration. In low-income areas, like the South, it has really taken hold.

In my travels through the egg-producing areas of the South for the past seven years, I've seen vertical integration grow from a slow start to where about half the hens are now in such programs. There we find many farmers with too little capital to finance flocks of 5,000 hens or more, too little production know-how, a relatively lower standard of living, and not too many alternative opportunities to earn a living in business and industry.

Assured Income

Here the big feed company, hatchery or egg distributor can find many farm folks who like the opportunity of using their farms and labor to get an assured income, with no market risk. They gladly follow direction and supervision from the service men of an integrator. The deal is good enough, by their standards, that they perform ambitiously, because they know they'll be cut out if they don't.

Production is generally good in these integrated operations, because the individual flocks generally run from 5,000 to 10,000 hens each, depending on the size of the family. The integrator, if he's a feed man, usually hatches his own chicks and markets the eggs . . . or he makes his own feed if he's a hatcheryman. So he has some real savings.

He generally has a big investment in the whole business which isn't all paid for. So he still has to earn the money for interest and principal payments out of the eggs. This means that periods of low egg prices pinch the integrator, who lacks a financial back-log, just like an independent. It runs up into big figures pretty quick.

Plenty of Capital

The competition from large integrators, then, comes from those who have plenty of capital and are able and willing to weather some sizable losses at times. In our own Northeast there is plenty of production know-how, and many family farms aren't burdened with a heavy debt load. The region has lots of good markets and many opportunities to make a living off the farm. Under such circumstances, vertical integration has little appeal and will make headway pretty slow.

This is not to say that it won't come or that it has no place. There are young poultrymen who haven't the capital or credit to invest what they need to get up to a 10,000 (or more) flock size. Some of these are looking for "contracts" to get established and build capital.

There are also some in middle

(Continued on page 28)

*Agway's Director of Poultry Industry Relations

NEW YORK STATE EXPO

IT'S 125 years since a few members of the State Agriculture Society and a small group of farmers put together the first New York State Fair in a small enclosed grove near Clinton Square in Syracuse. Now the grounds cover 350 acres, with 50 permanent buildings, and nearly half a million people visit the Exposition from all across the United States and Canada.

The original purpose of the Exposition in 1841 was to promote agriculture and household arts in the State, and to distribute information among farmers. Today's purpose is much more comprehensive . . . a showcase for the display of the State's natural wealth, productivity, talents, and ideas.

The 1966 Exposition starts August 30 and goes through Labor Day, September 5. The following listing may help you pick out the events you particularly want to see:

- | | |
|----------------|---|
| Sat. Aug. 27 | — Judging begins for International Horse Show |
| Mon. Aug. 29 | — Judging of Dairy Products
— Judging of Quality Beef Contest Steers |
| Tues. Aug. 30 | — Judging of Dairy Goats, 1 p.m.
— Judging of Fruit and Farm Products, 10 a.m.
— Judging of Grange Exhibits, 10 a.m.
— Judging of Forage and Grain |
| Aug. 30 & 31 | — Judging of Poultry |
| Aug. 30-Sep. 1 | — Judging of Swine |
| Aug. 30-Sep. 2 | — Judging of Sheep |
| Wed. Aug. 31 | — Inspection of Pork Carcasses, 4 p.m.
— Horse Pulling Contest, 5 p.m. |
| Aug. 31-Sep. 2 | — Judging of Dairy Cattle |
| Fri. Sep. 2 | — Auction of Champion Carcasses, 2 p.m. |

At the Flower Show in the Horticultural Building there is something new to be seen every day. Displays and exhibits are constantly changed throughout Exposition week. Judging days are as follows: for garden flowers, Tuesday, August 30; for African violets (commercial growers) August 30 through September 3; African violets (amateur growers) September 3 through September 5; roses, September 3-4; and dahlias, September 4. Judging begins at 11:30 a.m.

The professional chrysanthemum show will extend from Wednesday, August 31 through Monday, September 5, and the gladiolus show and educational exhibit is scheduled for Thursday, September 1 and Friday, September 2.

The Farm Machinery Show has a new name . . . it's now the Farm Machinery and Garden Implement Show, and it is open from the beginning to end of the Exposition (from 10 a.m. to 10 p.m. daily). Ten acres will be provided for the exhibits, and there will be something for everyone . . . farmers and urban dwellers.

American Agriculturist, September, 1966

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Competitor

(Continued from page 26)

or later life who want to stay on their farms, or have little opportunity to earn a good living elsewhere. They may not be able or want to take the market risks. They too may have to invest in modernization or expansion of their production facilities, so they go into contract egg production, at least temporarily. This is particularly true in the state of Maine and parts of Pennsylvania and New York.

The South

In talking about vertical integration, I mentioned the fact that poultrymen in the South generally have a lower cost of living and a somewhat lower standard of living on the whole than is true up in our Northeast. This, plus their reduced production of cotton, tobacco and peanuts, has turned them increasingly to poultry production . . . first broilers and now eggs. It has paid off so far.

The relatively-good egg markets of the last 5 years have brought in some pretty good profits. As a result, egg production has about doubled in this period in the block of states south of Virginia and across the Gulf of Mexico to Arkansas.

This rapid expansion has now brought the entire area, including Florida, from an egg deficit to an egg surplus position. Had we not had the recent very favorable egg price period, it's my opinion that further expansion would have slowed down to a walk. It is also my guess that future periods of low prices . . . and we're bound to get them . . . will hurt surplus areas like the South more than they have in the past.

In the meantime, however, we'll see increased shipments of their eggs into our markets for several years yet. They've got to move their surplus, and ours are the best markets available to them. This makes it rough for producers up here. Does this mean that we can't survive this competition? I wouldn't say this because I don't believe it . . . but let's not underrate this competition.

Some Comparisons

Keep in mind that margins, profits or labor income . . . however you look at it . . . come from the difference between costs and what the eggs bring.

Based on the information I have, the competitive picture looks something like this:

Costs: Feed is the biggest cost in producing eggs. In the Carolinas I found feed prices about at the same level as poultrymen in the Northeast pay for similar quality and load size. In Georgia and on west across the Gulf feed prices averaged about \$4 a ton lower. In Florida they were \$2 to \$4 a ton higher.

Ready-to-lay pullets make up the second highest cost of production. Because of averagely lower feed prices, and because so many are produced under contract by growers who get one cent a bird a week, replacement pullets cost 10-

30 cents less in most of the South.

Labor is cheaper by the hour, day or week than up here, but on more than half the farms it is less efficient than the family or hired help in the Northeast. Overall, the South may have a small advantage in labor cost per dozen eggs produced.

Housing and equipment are of two widely-different types in the southern states I visited. In the Carolinas and the northern half of Georgia . . . as well as in Alabama and Mississippi . . . most poultrymen use pole type, open-sided, dirt floor houses. They have plenty of heat for 6 to 8 months, but must cover the sides with plastic film during winter cold spells. So they have to give the birds more floor space than we do in our modern, high-density houses. While their houses cost much less per square foot than ours, they are not much cheaper per hen.

In Florida and the southern half of Georgia and the Gulf states, what is called a "California Cage House" is predominant. This is very inexpensive per square foot and per hen. A peaked roof on poles 8 to 10 feet apart runs 100 to 500 feet long. A row of single-tier cages is fastened to the poles on each side, and a cement walk about 30 inches wide runs down between them. Feeding and egg gathering is done by motorized cart which travels on the cement walk. Miscellaneous costs such as taxes, insurance, etc. are all lower in most of the Southern states than up here.

Put these all together and I would estimate comparative total costs of production in the Carolinas and Florida about the same as in the Northeast. In the balance of the South, the costs per dozen were from 1 to 3 cents a dozen less than good poultrymen achieve up here.

Returns: A minor portion of the eggs produced in the South find their way into pretty good markets, notably in Florida. The rest of the eggs, especially those shipped up into our markets, net the producers 2 to 5 cents a dozen less than the majority of commercial poultrymen get here. The average is about 3 cents a dozen less.

This means that they have and still are offering fine eggs in our big city markets for several cents a dozen less than our eggs have been selling for. The pressure of this cut-rate competition is being felt more and more. The large chain stores buy increasing quantities of these Southern eggs, and use them as levers to force the price down on their "nearby" purchases.

This is the competition which we must not underrate. It's my opinion that well-run family farms in the Northeast can and will keep their total production costs within one cent a dozen of the South. This is less than it costs them to put eggs into our markets.

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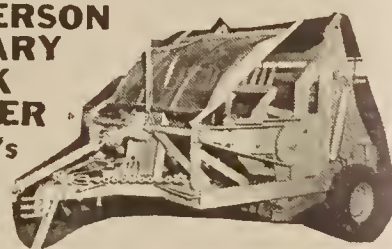
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VISIT THE FLOWER SHOW

by Nenetzin R. White

HAVE YOU been to our New York State Exposition at Syracuse recently? If not, you'll be surprised how the whole pattern of the "Fair" has changed in recent years. Now it's better than ever, and all the family will find many things to interest and entertain them.

There are so many horticultural classes and exhibits that a separate premium book called "Flower Show" is published. One of the fun things to do would be go and look around this year, then next summer get the book early and enter a class or two. There are classes for almost any group you can name — juniors, seniors, professionals, commercial — giving everyone a chance to compete with people in their own age group or standing.

It might be wise to ask a Garden Club member for help, especially as to what flowers cannot be used in arrangements. There is a list of protected plants which, even if you grow them yourself, cannot be used in a recognized flower show.

Another section of the Horticultural Department will be "Gardens for Natural Beauty," areas 8 x 15 feet which may include planting boxes and similar units, alone or with plant beds or backgrounds. These should really give you some wonderful ideas for your own garden and yard.

There will be entries of plants and flowers from both commercial growers and amateurs, including juniors. A very comprehensive list will be included in this group — annuals, perennials, bulbs and roses. Here is where a few blossoms of delphiniums, zinnias, petunias, or a nice house plant may win you a ribbon and maybe even some prize money!

Flower Arrangements

One of the most delightful sections is where the table arrangements and special flower arrangements are on display. Most of these will have a basic theme this year, "Natural Beauty in New York State." This section is divided into five areas: Southern, Metropolitan New York and Long Island, Eastern and Adirondack, Central and Finger Lakes, and Western.

Modern flower arrangements can be exquisite and are a real challenge. Figurines, wood, stone, and such things are used to help

carry out many themes. I'm sure you will go home with many new ideas.

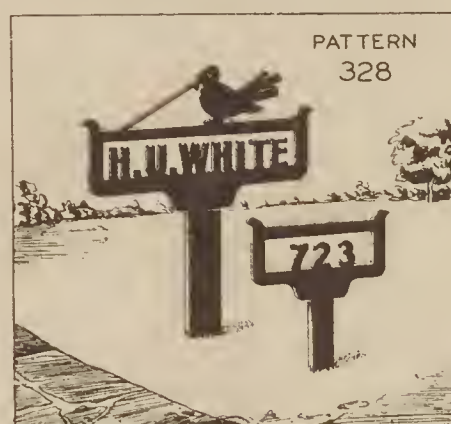
The Garden Club entries include arrangements for niches, mantles, side tables, and other table pieces. I always drool over these — the buffet, luncheon, and dinner table entries make me want to set them up in our house for the next meal! Even for non-gardeners, the natural beauty and perfection of these flowers, plants, and arrangements should be fascinating.

Permanent Displays

Two years ago, the New York State Nurserymen's Association started a program of permanent plant displays, which in time will be a great asset to the Exposition grounds. These are located around the Horticulture Building and include many unusual evergreens and shrubs, as well as the more common ones. The design, labor, and all plant materials were donated by various members of the Nurserymen's Association.

Like every volunteer job of this nature, a "spark plug" was needed; in this case it turned out to be William Kuhl of Skaneateles. Again this year, in cooperation with his fellow nurserymen, Mr. Kuhl has undertaken to add new plantings to this project.

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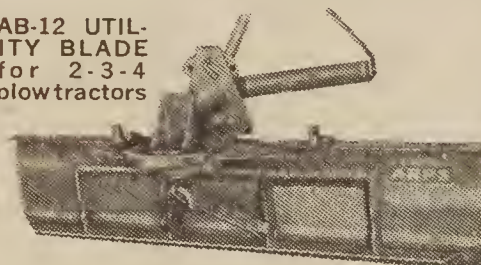


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American Agriculturist, September, 1966

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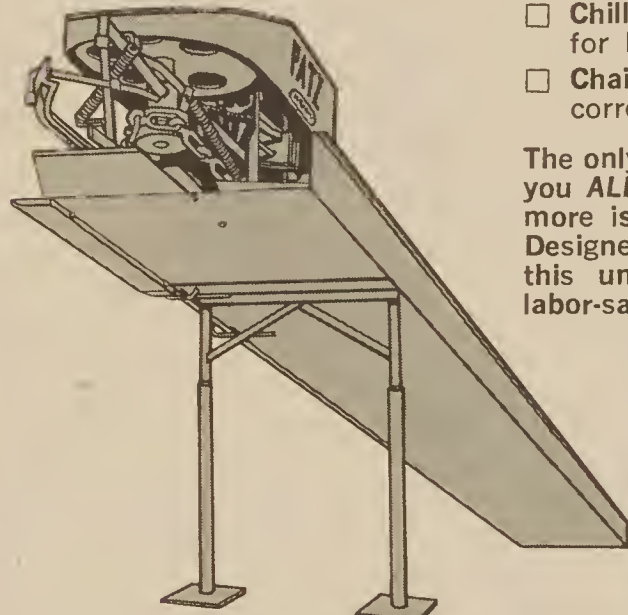
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- ☐ Wear shoe on each flite a full half-inch thick for longer flite life
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Reverse and Swinging Tailgate Optional
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For additional information contact Lamco, Rte. 90, Locke, N. Y.

WHO DOESN'T love to eat cake? It is welcomed heartily as a regal dessert for a family meal or cooperative dinner, to celebrate a birthday or anniversary, and may even win a coveted blue ribbon at a fair!

There are really only two kinds of cake: 1. shortening-type cakes made with butter or other shortening and leavening as baking powder or baking soda and 2. foam or sponge-type cakes (angel food and true sponge cakes) made without shortening and leavening, other than air beaten into the eggs. Chiffon cakes are actually foam-type cakes but are made with vegetable oil and some baking powder, which gives them the airiness of an angel food with the tenderness of a shortening cake.

Here are some suggestions to help you become a cake artist.

Getting Ready. Use tested recipes and read recipe carefully. Assemble ingredients (they should be at room temperature) and utensils. Do any preparatory work as chopping nuts, raisins, etc. Prepare baking pans of size called for, neither too small nor too large. Shiny pans of aluminum or tin give a delicate brown crust to cakes.

Grease pans (bottom only, not sides) and dust lightly with flour or paper line for shortening cakes. Never grease pans for foam-type cakes. Preheat oven to correct temperature. When using glass baking pans, reduce oven temperature called for by 25 degrees. Place racks in center of oven.

Measuring. Use only graduated standard measuring cups and spoons. Measure all ingredients carefully. Sift flour before measuring (or follow manufacturer's directions) — spoon lightly into cup, slightly heap, and level with straight edge of knife or spatula; do not shake to level and do not sift directly into cup. Spoon sugar into cup and level, brown sugar firmly packed.

Spoon shortening firmly into cup and level, or 1/4 pound stick equals 1/2 cup. Pour thick liquids as molasses and sirup into cup or spoon and level; dip measuring spoon into leavening and salt, heap, and level. Eggs mentioned in recipes usually mean medium size (2 large eggs equal 3 small eggs). If you need more than one recipe, make it as many times as necessary; doubling may cause trouble.

Mixing. Use bowl large enough to permit vigorous beating; avoid plastic bowls for beating egg whites. A wooden spoon may be more comfortable than a metal one. Follow mixing directions carefully. In beating egg whites for foam cakes or to be folded into butter cakes, beat only to a pointed peak stage while still moist and glossy.

"Fold in" — do not stir in beaten whites. Pile all whites on top of batter at once, cut down and lift mixture up and over with spoon or rubber spatula, just until well blended. Also fold in when adding thickly beaten eggs or egg yolks. When adding sifted dry ingredients alternately with milk, add in about

Good Baking to You



by Alberta D. Shackelton

4 lots, starting and ending with flour, and stir only to blend well.

Baking. Place cake pans in middle or near middle of oven with space between and away from oven walls. If two shelves are needed, stagger pans so one pan does not stand over another. Test cake at minimum baking time (don't open door before this and don't shift pans during baking). To test — press top of cake lightly. If cake

the frosting, blend in 1 to 1 1/2 cups sifted confectioners' sugar. Add a little at a time until frosting is stiff enough to hold shape. Blend in 1 tablespoon soft butter and dash of salt. This makes the icing for the daisies.

Tint rest of frosting pale yellow and fill and frost cake. Use all but 1/2 cup of the reserved icing to form pretty white daisies around border of cake. Tint part of remaining



springs back and no imprint of finger remains, cake is done; or, toothpick or cake tester inserted in center comes out dry and clean.

Cooling. Let butter cakes stand 10 to 15 minutes in pan before removing. Remove from pan, peel off paper if used, and cool right side up on metal rack. (Cool fruit cakes in pan until lukewarm.) Invert foam-type cakes to cool completely before removing from pan. Completely cool all cakes before frosting.

GOLDEN DAISY BUTTER CAKE

- 2/3 cup soft butter
- 1 3/4 cups sugar
- 2 eggs (1/3 to 1/2 cup)
- 1 1/2 teaspoons vanilla
- 3 cups sifted cake flour
- 2 1/2 teaspoons baking powder
- 1 teaspoon salt
- 1 1/2 cups milk

Combine sugar, butter, eggs, and vanilla. Beat 5 minutes at high speed of electric mixer or by hand until fluffy. Sift together the flour, baking powder and salt. Add alternately with the milk and beat on low speed just until smooth. Pour into two well greased and flour-dusted 9 x 1 1/2-inch round layer cake pans. Bake in moderate oven (350) 30 minutes, or until cake tests done.

Daisy Frosting. Make your own frosting or one package of prepared Frosting Mix. To one cup of

icing light green and form leaves; tint rest yellow and use for daisy centers.

FAIRY SPONGE CAKE

- 6 egg yolks
- 1/3 cup water or orange juice
- 3/4 cup sugar
- 1 teaspoon orange extract
- 1 teaspoon lemon extract
- 1 1/2 cups sifted cake flour
- 1/4 teaspoon salt
- 6 egg whites
- 3/4 teaspoon cream tartar
- Dash salt
- 3/4 cup sugar

Beat egg yolks until thick and lemon colored; add water or orange juice and continue beating until very thick. Gradually beat in the 3/4 cup sugar and stir in orange and lemon extracts. Sift flour and salt together 3 times and fold into the egg yolk mixture, a little at a time until well blended.

Beat egg whites until foamy; add cream tartar and salt and continue to beat until stiff, moist, glossy peaks form. Fold about one-quarter of the egg yolk-flour mixture into the beaten whites, then fold the whites into the mixture.

Place in an ungreased 10-inch tube pan, leveling and pushing batter gently against sides and tube to prevent large holes. Bake on lowest rack in slow oven (325) about 1 hour, or until cake tests done. Invert pan to cool.

Remove cake from pan carefully by running a sharp knife or

spatula around cake, close to pan. If desired, frost cake with a light film of confectioners' butter frosting, made with orange juice and a little grated orange rind.

LADY BALTIMORE CAKE

- 3/4 cup shortening
- 1 3/4 cup sugar
- 1 1/2 teaspoons vanilla
- 3 cups sifted cake flour
- 4 teaspoons baking powder
- 3/4 teaspoon salt
- 1 cup milk
- 6 egg whites, beaten stiff but not dry

Cream shortening and sugar together until very light and fluffy; stir in vanilla. Sift together the dry ingredients and add alternately with milk to the creamed mixture. Stir only enough after each addition to blend well. Fold in beaten egg whites carefully. Pour into greased and lightly floured layer cake pans — 2 9-inch or 3 8-inch pans.

Bake in moderate oven (375) about 30 minutes, or until cake tests done. Cool in pans on metal rack 10 to 15 minutes. Remove cake from pans and when thoroughly cool, put layers together and frost with Lady Baltimore Frosting.

LADY BALTIMORE FROSTING

- 2 egg whites
- 1 1/3 cups sugar
- 1/2 cup light corn sirup
- 6 tablespoons water
- 1/2 teaspoon salt
- 1/4 teaspoon cream tartar
- 1 teaspoon vanilla extract
- 1/3 cup finely cut raisins
- 1/3 cup finely cut figs
- 1/3 cup chopped pecans

Mix well first six ingredients in top of double boiler. Place over rapidly boiling water and beat constantly with rotary egg beater until frosting is light and stands in soft peaks (about 4-5 minutes). Remove from heat and continue to beat until stiff enough to spread. Add vanilla extract.

Remove about 1/3 of the frosting to a separate bowl. Mix in the raisins, figs, and nuts and use between layers. Use remaining plain frosting for top and sides of cake.

CHOCOLATE PEPPERMINT ROLL

- 4 eggs, separated
- 3/4 cup granulated sugar
- 2 squares chocolate, melted and cooled
- 1 teaspoon vanilla extract
- 6 tablespoons sifted cake flour
- 1/2 teaspoon baking powder
- 1/4 teaspoon salt

Beat egg yolks until thick and lemon colored. Beat in sugar gradually and continue beating until smooth and light. Stir in cooled chocolate and vanilla extract. Sift together and stir in dry ingredients, blending well. Fold in the stiffly beaten egg whites.

Spread mixture evenly in a pan about 15 x 10 x 1 inches, which has been greased and then lined with wax paper, cut about 1/2 inch smaller than pan and lightly greased. Bake in moderate oven (375) about 15 minutes or until it tests done.

Cut away crisp edges of cake quickly and turn cake onto a towel and peel off paper. Cool slightly and roll up cake with towel starting at short side. Cool. Unroll and spread with 1 quart slightly softened pink peppermint ice cream, re-roll, and freeze until firm.

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8143
10-20



8182
32-44

8127
10-20



8101. Petal-shaped sleeves for a charming afternoon style. Sizes 12 1/2 to 26 1/2. Size 14 1/2, 35 bust, 3 1/4 yards of 45-inch.

8143. Versatile easy to sew jerkin and skirt. Sizes 10 to 20, bust 31 to 40. Size 12, bust 32, jerkin, 1 1/4 yards of 54-inch; skirt, 1 3/4 yards.



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12 1/2-26 1/2

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125th ANNIVERSARY

by Augusta Chapman

EVERY WOMAN will find something to interest her in the Art and Home Center at the 1966 New York State Exposition! This year's Fair celebrates "125 Years of History-Making" and runs from August 30 through September 5, in Syracuse.

An attractive, well equipped kitchen is a big help in serving good tasting, nourishing meals to one's family, and there's a brand new Food Demonstration Kitchen, featuring the latest trends in decoration and appliances. Eighteen outstanding food specialists will be on hand throughout the week to demonstrate quick and easy recipes, gourmet dishes, foreign foods, and old-time favorites. This year a greenhouse has been added to the kitchen where herbs are grown for use in the demonstrations.

A different type of food will be judged each day in the Creative Cooking Contest, also cakes decorated for special occasions such as Father's and Mother's Day, graduation, patriotic events, and a bon voyage party.

A new contest feature this year will be the "Governor's Cookie Jar" which the winner will present to Governor Rockefeller on Governor's Day. Also, some lucky person will be named "Most Creative Cook of the 1966 New York State Exposition" and receive a portable dishwasher as a grand prize.

In the Home Arts and Crafts Departments, prize-winning articles in every imaginable category will be on display, and there'll be daily demonstrations in weaving, rug hooking, pottery, furniture refinishing, quilting, crewel work, etc. In honor of the theme, a new section on American Antiques has been added where old quilts, wall hangings, furniture, banks, dolls and other toys will be featured.

Popular Feature

For the fifth consecutive year, talented youngsters from the Auburn Children's Theater will have

their ACT-Wagon at the Fair. An original script called "Gypsy Treasure" and a puppet play about Rip Van Winkle will be given. This has become a very popular event for both children and adults. Also, Robert Earle of the General Electric College Bowl will be on hand again for the third annual Spelling Bee. Contestants will be winners in area spelldowns who have not yet begun 9th Grade.

Women interested in art will want to see "125 Years of Painting and Sculpture in New York State" and the photography exhibition, "The World from the Air."

Three fashion shows this year will include "Make It Yourself with Wool," sponsored by the National Wool Council, the 4-H Dress Review, and "Fall Themes in Fashion," presented by McCall's.

Women's Day will be Wednesday, August 31, with Dr. Louis L. Tucker, Assistant Commissioner for State History in New York, speaking to the luncheon guests. The State's First Lady, Mrs. Nelson E. Rockefeller, will be there to present the Community Service Awards.

Indian Village

I can remember how the Indian Village fascinated me on my first visits to the fair. Always the coolest spot on the grounds, improvements this year will make it more attractive and more authentic. Village guides will wear regalia costumes, and exhibits will show how the State's 9,200 Iroquois Indians farm and keep house today.

Whatever your special interests, there'll be many things to see and do at the 1966 New York State Exposition. Come and bring the children — toddlers can play in the Children's Center while you do the Fair, and older boys and girls will enjoy "Fantasy Land," the revolutionary new play area where they learn how to make things from commonplace materials such as cardboard boxes, clay and paint.



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TEACHER REMEMBERED

by Inez George Gridley

Her thoughts were never folded in a book. She smiled and there was morning in her eyes.

We soon forgot that she was thin and plain; Each day was filled with magic and surprise.

The great bird soared on many pinioned wings— Life never crept back in its narrow cage. Today I read the volumes of the past And see her face on every turning page.

DO YOU HAVE . . .

Any idea where Mrs. Sue Merri-man of Somers, Conn., can get a copy of the "Lindhale Vitamin Cook Book," published by the National Nutrition Society, Inc., of New York City about 25 years ago?

A "recipe" for soft soap? Mrs. Helen E. French, Route 1, Genesee, Pa., would like to know how it is made.

A recipe for Doughnuts made with condensed milk? Mrs. Frederick Gary, Route 1, Winthrop, New York, says it was published in the "Rural New Yorker" about 20 years ago.



Last year's fair goers watch "The Wizard of Oz," presented by the Auburn Children's Theater on their ACT-Wagon. This year they'll give an original play, "Gypsy Treasure" and a puppet play about Rip Van Winkle.

American Agriculturist, September, 1966

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John Greenleaf Whittier put farm folks' feeling about corn in his famous Corn Song, a few verses of which I quote:

**Heap high the farmer's wintry hoard!
Heap high the golden corn!
No richer gift has autumn poured
From out her lavish horn! . . .**

**We dropped the seed o'er hill and plain,
Beneath the sun of May**

**And frightened from our sprouting grain
The robber crows away.**

All through the long bright days of June,

**Its leaves grew green and fair,
And waved in hot midsummer's noon
Its soft and yellow hair.**

**And now, with autumn's moonlit eves,
Its harvest time has come,
We pluck away the frosted leaves,
And bear the treasure home. . . .**

**Let earth withhold her goodly root,
Let mildew blight the rye,
Give to the worm the orchard's fruit,
The wheat field to the fly.**

**But let the good old crop adorn
The hills our fathers trod;
Still let us, for his golden corn,
Send up our thanks to God!**

THE COW OF THE FUTURE

The average annual production of dairy cows when I was a boy was not over three or four thousand pounds. No dairyman then with the wildest imagination could have dreamed of the time when the average production of dairy cows would be well over nine thousand pounds per year . . . with thousands of herds averaging fifteen thousand pounds. Yet such is the case today.

Many factors, of course, have brought about this increase, but the principal one is artificial insemination. Think what it has meant for any dairyman who wishes to have at the head of his herd bulls worth thousands of dollars, with daughters with production records far above the average.

So much for the male side of the dairy. What about the female side? Here also the possibilities are almost boundless.

The fertilized eggs from any single cow are almost unlimited in number. For years scientists have been trying to transplant eggs from great dams to foster mothers,

who would then take the calves through pregnancy and calving. This would make it possible to give every calf both a great sire and a great dam. Enough progress has been made with this method to insure ultimate success.

Will this increase the surplus problem? I don't believe it. There will be fewer cows, and with consumer numbers rapidly increasing there will be a market for all the milk we can produce.

THE GREATEST HAPPINESS

"Never have I read a book that gave me so much pleasure as your 'Journey to Day Before Yesterday'. In fact, I have read your book twice, and intend to read it again. In the meantime I am lending it to my children." W.J.F.

This is a sample of the hundreds of letters I am receiving from readers of "Journey to Day Before Yesterday."

Nothing I have ever done has meant more to me than this book, because it is bringing so much happiness to its hundreds of readers. The older I get the more I realize that the greatest happiness

comes from making others happy.

If you want to open a door and step back into yesterday this book will give you a key.

"Journey to Day Before Yesterday" will be mailed to you post-paid on receipt of your check or money order for \$5.95 (New York State residents add 12¢ for state tax). Write to American Agriculturist, Book Department, Box 370 Ithaca, New York, 14850.

WHO HANDLES THE MONEY?

Handling family finances has caused more trouble between married couples than almost anything else.

In farming, the problem is more complicated than in any other business because there should be two sets of accounts — one for the home and the other for the farm business.

Keeping the accounts on a large modern farm is a very important and necessary job. No longer can we throw the financial papers into a bureau drawer and try to sort them out of the mess when needed.

Who should keep the books depends of course on the circumstances and on the individuals. Probably the wife should keep the household accounts; on many farms she also keeps the farm books. But generally the husband keeps the farm records. In either case, if at all possible there should be a well-organized farm office and a modern filing system.

A successful marriage depends to a very great extent on a financial policy of fifty-fifty, share and share alike. The money and the responsibility belong to both parties. Each should be free to make small personal purchases; each should know exactly what the financial situation of the family is; and each should share in the knowledge and responsibility of any large transaction.

IT CAN BE DONE

I have asked several older farmers in the last few months if they thought it was as easy now for a young farmer to get started as it was when they started. The answer is usually "No."

According to some estimates, at least \$27,000 in capital would be needed to start farming on an ownership basis, and that's a lot of money.

But even if we grant that it is more difficult now than it used to be to begin farming, it still can be done and many young people are

doing it. Hundreds of young men are going in partnership with their fathers; others accumulate capital by working for a time as hired men or in some other occupations; still others start as farm managers or on a rental basis.

Thousands of young men and women belonging to 4-H Clubs or to the Future Farmers have thousands of dollars in stock and cash in the bank . . . and they also have farm "know-how" to back up their capital.

It will be unfortunate indeed for the nation and the individual if the time comes when young couples can't farm. This is one reason why we must watch Big Government . . . that by controls and allotments good men are prevented from getting a toehold in farming.

What do you think? I'd like some encouraging letters on the subject from actual experience.

WATCH OUT!

I can think of nothing worse than having to live with yourself and your conscience the rest of your life after you have killed a child.

School time is here again and the streets are full of children. Drive slowly near the schools, stop for buses . . . watch out lest you be forever sorry.

EASTMAN'S CHESTNUT

I have just found an old letter that Howard Roe, my cousin, (who lives in Candor, New York) wrote me in the summer of 1925, 41 years ago, about the drought in his neighborhood. Farmers have been worried about the dry weather of recent years, but I don't believe it has ever been so bad as the drought described in Howard's letter. He said:

"Dear Ed: We haven't had any rain here in four weeks. The dew is only wet on one side. We have bullfrogs six weeks old that never had a chance to swim yet. One of my neighbors started to plow a ten-acre lot for buckwheat. The ground was so hard and dry and stony the only way he could start his plow was to begin at a woodchuck hole in the center of the field. Whenever the plow would jump out, he would go back to the chuck hole to start again. After he had plowed six and one-half acres the hole was completely worn out. In order not to be beaten, he actually hunted up the woodchuck and gave him \$5.00 to dig a new hole so he might finish the job of plowing!"



ED EASTMAN'S PAGE



SERVICE BUREAU

For several years, whenever space permits, we have been printing requests from subscribers who are seeking all sorts of help, ranging from the words to old songs or poems to out-of-print patterns or books. Judging by the response from our readers, this is a popular feature. They enjoy reading

through these requests and helping when they can.

Regrettably, we have a tremendous backlog of these requests so, in an attempt to bring them a bit more up to date, we are printing more than the usual number in this issue.

CAN YOU HELP ?

If you have any of the answers, please send them direct to the person whose name and address is given, not to us.

Mrs. Leah V. Krider, Rt.#1, Box 63, West Farmington, Ohio, would like to know if anyone knows the title & author of the following: "There's a window in my Garden Looking out across the Sea."

Mrs. Selden Young, R.F.D.#2, Scio, N.Y., would like the words to "Two Little Orphans." She remembers it started out: "Two Little Orphans, A Boy & A Girl, sat by an old Church Door."

Mrs. Pearl Moses, 55 Main St., Batavia, N.Y., would like sheet music to "Black Velvet Waltz," and "Too Tired." She would also like to borrow or buy "When Life was Young" by C. A. Stephens.

Mrs. Bess Skinner, Box 456, Richfield Springs, N.Y., would like copies of "Nine Mile Swamp" and "Listen for a Lonesome Drum" by Carl Carmer.

Mrs. Stephen Steciak, Jr., R.D.#1, Little Falls, N.Y., would like to obtain several copies of "Illustrated Story of Milk" by George More and published by the Freeman's Journal of Cooperstown, N.Y.

Mrs. Norman Wright, 7920 Short St., Indian Falls, Corfu, N.Y., would like a copy of directions to make a "Jiffy Knit Sweater" popular in the 1930's.

Mr. D. F. Seaver, Box 285, Emporium, Pa., would like to contact parties having scrap-book collection of "Prose-Poems" by Walt Mason.

Mr. A. Zaika, 201 Bergan Ave., Bellmawr, N.J., would like old dog license tags.

Miss Mildred McLellan, Box 6, Tolland, Conn., would like books written by Horatio Alger, and Joseph Lincoln. Also, would like *American Agriculturist*, September, 1966

an old set of dishes with the "stacks of wheat" pattern.

Maynard D. Lake, 901 Wadsworth St., Upper Apt., Syracuse, N.Y. would like to purchase a used copy of the book, "Thunderhill," by Elizabeth Norris.

Mrs. D. J. C. Drew, 211 Third St., Morris Park, Phillipsburg, N. J., would like the "Elsie Dinsmore" and "Mildred" series written by Martha Finley.

N. M. Cressman, Pastor, 126 W. Federal, Allentown, Pa., would like to locate AUGSBURG Publisher's Annual Christmas book #1 for the year of 1931.

ADDRESSES WANTED

If you think you may know any of the following people, please write to Service Bureau, American Agriculturist and the Rural New Yorker, Box 367, Ithaca, New York.

Raymond Melvin Cooper, whose last known address was Jackson, Miss.

Frank Lester Holden, whose last known address was 511 E. 79th St., N.Y.C., and who worked as an electrician in Bethlehem Steel shipyards at Hoboken.

Ruth L. Case, formerly of Blue Lake, Cal. Her mother would like to locate her.

William Halco, who lived on Rockdale Ave., Fall River, Mass.

August Wolocko, who lived in Detroit or Hamtramck, Mich. about fifteen or twenty years ago.

Any descendants of Claude Ervay and Susie Westbrook.

Mark Palmer, formerly of Interlaken, N. Y., whose last known address was Buffalo, N. Y.

Descendants of Steve Murphy, whose last known address was Cortland, N. Y.

A Helping Hand

North American agent Paul Brisson of Massena, N.Y. has been serving families throughout Franklin and Clinton counties for a number of years. Often he returns to them bringing a helping hand.



His silo unloader froze up during a January cold snap. Mr. Paul Demers of Malone, N.Y. was sure the power switch was off when he stepped into the silo. As he pushed on the blade to break it loose it suddenly spun on him smashing his ankle and leg. It nearly cut it off for he spent 66 days in the hospital. Mr. Demers had two North American policies which paid \$1147. As he said, he could have used all the insurance he could get his hands on.

Their house caught fire during the night. Mr. James Johnson of Burke, N.Y. gathered his family of ten in one bedroom on the second floor. He first jumped to the ground so to catch his family as they jumped. In landing he broke his ankle. Even so and with burns he caught each of his family. They all were saved with no further injuries but their house burned to the ground.

Carrying a combination of four policies Mr. Johnson received \$1427 in disability income and medical expense benefits.



Keep Your Policies Renewed

A friend's name may be in this list.

Harry Leilous, Belmont, N.Y.	\$ 142.86	Max F. Chmura, Jr., Durhamville, N.Y. \$ 178.86	
Auto acc.—injured chest		Fell from haymow—broke arm	
Walter Mueller, Binghamton, N.Y.	330.00	William T. Swain, Fayetteville, N.Y.	545.88
Fell from ladder—broke pelvis		Fell from ladder—inj. back and wrist	
William Goodrich, Harpursville, N.Y.	377.12	Clarence Moore, Canandaigua, N.Y.	1610.00
Kicked by cow—injured back		Caught in cornpicker—injured hand	
John A. Smith, E. Randolph, N.Y.	513.58	Clarence A. Baker, Albion, N.Y.	904.13
Chain saw—severed tendon		Fell off house roof—inj. back	
William T. Randolph, Sr., Moravia, N.Y.	760.45	Ralph Cook, Richland, N.Y.	365.54
Fell & hit gutter—broke back		Auto acc.—broke arm, mult. cuts	
J. William Tan Pas, Falconer, N.Y.	619.09	Bessie Walker, Richfield Springs, N.Y.	112.86
Caught in gutter cleaner—injured hand		Caught in wringer—mangled hand	
Gerald B. Vanderhoff, Elmira, N.Y.	109.75	Lloyd W. Flack, Madrid, N.Y.	154.14
Repairing bulldozer—broke finger		Knocked down by cow—broke thumb	
Siegfried Moses, Norwich, N.Y.	188.56	William R. Greene, Madrid, N.Y.	154.28
Kicked by heifer—inj. leg		Sharpening knives on mower—cut hand	
Helen King, Ellenburg Depot, N.Y.	167.14	Roy Van Heertum, Sharon Springs, N.Y.	288.88
Auto accident—injured shoulder		Repairing spreader—broke leg	
Mary Ewing, Homer, N.Y.	1300.00	Harris Jenkins, Alpine, N.Y.	198.06
Auto accident—back injury		Stepped on by calf—inj. foot	
Burton Merwin, Jr., Bloomville, N.Y.	122.86	Herbert Fenwick, Romulus, N.Y.	1430.71
Fell—injured shoulder and arm		Fell from wagon—injured head, legs	
Malcolm Wyman, Williamsville, N.Y.	525.31	Guy Ribble, Lindley, N.Y.	370.43
Rollled over by tractor—inj. leg		Ran into bracket—cut eyelid	
Raymond Vaughan, Essex, N.Y.	831.69	Robert Lamphier, Canisteo, N.Y.	249.87
Shot by hunter—injured arm		Kicked by cow—injured leg	
Harold F. Thomas, Malone, N.Y.	180.16	Paul L. Barret, Newark Valley, N.Y.	292.77
Slipped off tractor—inj. back		Fell off ladder—broke wrist, rib	
Robert M. Stewart, Jr., Johnstown, N.Y.	243.52	Donald Babcock, Groton, N.Y.	240.64
Kicked by cow—injured wrist		Truck acc.—broke ribs, multi. cuts	
Charles Cook, Batavia, N.Y.	664.82	Floyd V. Elliott, Marion, N.Y.	250.00
Thrown off tractor—broke rib, shoulder		Fell off spray rig—inj. shoulder	
Evelyn G. Smith, Jordanville, N.Y.	316.50	Gerald J. Meyers, Varysburg, N.Y.	130.39
Bit by cat—injured finger		Caught in field chopper—inj. hand	
Ervin Widrick, Mannsville, N.Y.	1417.86	Henry Woodarski, Jr., Dundee, N.Y.	407.00
Stepped on by cow—broke arm		Kicked by cow—broke cartilage	
Audis LaPlatney, Harrisville, N.Y.	242.20	Arista Spotts, Gillett, Pa.	102.88
Horses ran away—inj. knee		Fell from tractor—multi. cut, bruises	
Robert Schneider, Boonville, N.Y.	634.90	Mildred S. North, Russell, Pa.	183.49
Hit by baseball—inj. eye		Hit by cow's head—cut scalp	
Robert Wachholder, Mt. Morris, N.Y.	317.12	Fred S. Brink, Sussex, N.J.	900.00
Kicked by cow—injured leg, shoulder		Thrown from spreader—injured back	
Benjamin Lodor, Hamilton, N.Y.	250.00	William King, Lebanon, N.J.	180.00
Thrown under rake—inj. leg and back		Hit by tail gate—injured foot	
William G. Graham, Scottsville, N.Y.	452.14	Howard Layton, Woodstown, N.J.	161.70
Thrown from tractor—injured back		Insecticide poisoning	
Howard Sweet, Amsterdam, N.Y.	210.00	Harold R. Colby, Sr., Penacook, N.H.	264.21
Fell over saw—inj. knee, shoulder		Log binder loosened—broke jaw, cut face	
Eugene Hillman, Ransomville, N.Y.	107.64	Amie Blanchard, Bethel, Vt.	1107.73
Auto acc.—whiplash inj.		Auto accident—inj. face, nose, knee	

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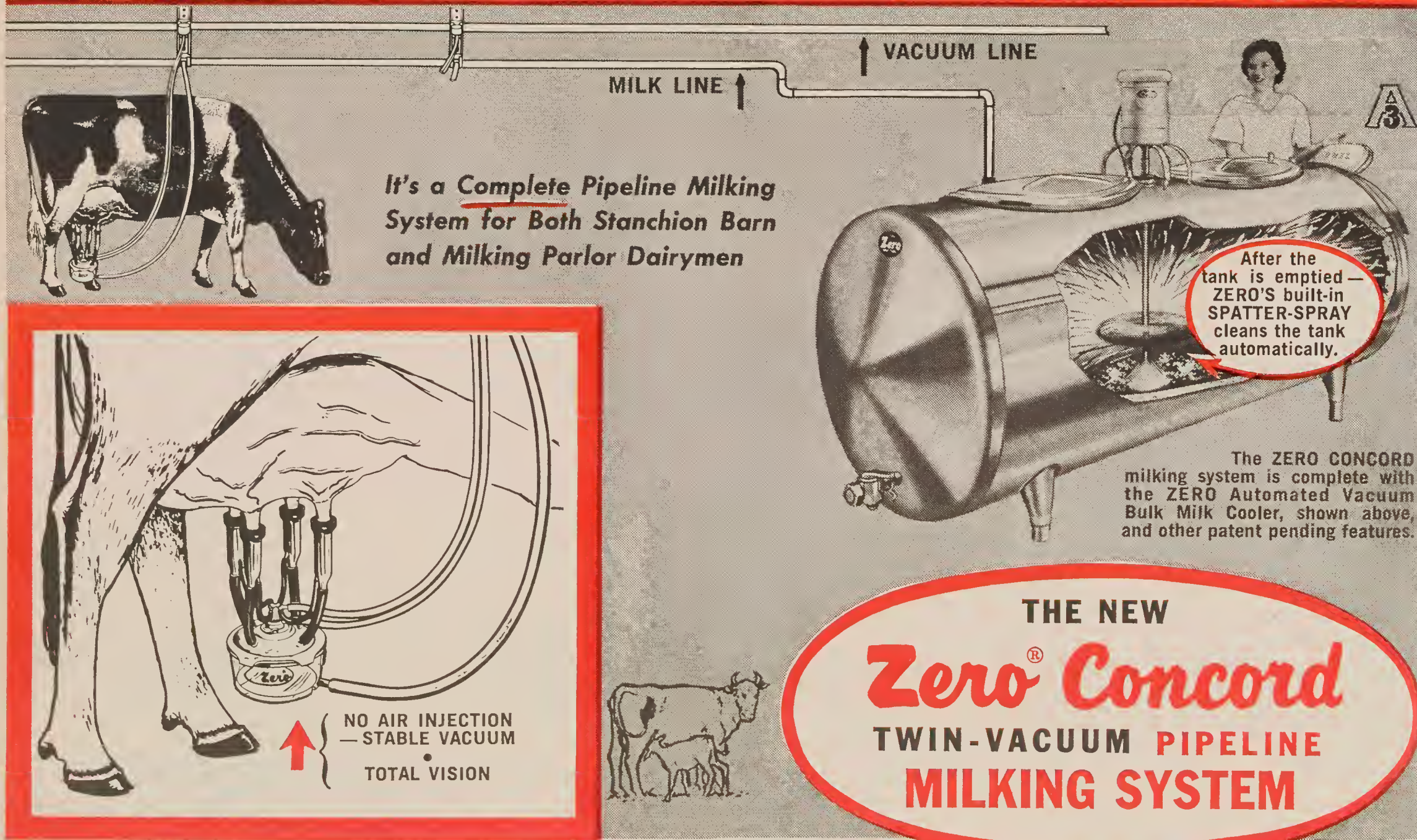
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It's a Complete Pipeline Milking System for Both Stanchion Barn and Milking Parlor Dairymen

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The ZERO CONCORD milking system is complete with the ZERO Automated Vacuum Bulk Milk Cooler, shown above, and other patent pending features.

THE NEW
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TWIN-VACUUM PIPELINE MILKING SYSTEM

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TOTAL VISION

OPERATES BY NEW, SCIENTIFIC PRINCIPLE... **TWIN-VACUUM!**

One Vacuum Milks the Cows — the Other Vacuum Moves the Milk into the Bulk Tank

The ZERO CONCORD is a combination of a revolutionary milking machine and pipeline, and the ZERO Completely-Automated Vacuum Bulk Milk Cooler. It operates by a new, scientific principle... **TWIN-VACUUM**. The ZERO CONCORD milks the cows — moves the milk through the pipeline into the bulk tank — and cools and stores the milk — ready for pick-up. Only with a vacuum bulk tank is so simplified a complete milking system possible.

HERE'S HOW ZERO'S TWIN-VACUUM WORKS:

While conventional milking systems operate with air injection — the ZERO CONCORD operates with two, separate vacuums; each doing an entirely-different job.

One vacuum — in the air line that's connected to the vacuum pump — milks the cows. The other vacuum — in the milk line that's connected to the vacuum bulk tank — moves the milk, drawing it quickly through the milk line into the bulk tank.

TWIN-VACUUM GIVES YOU THESE ADVANTAGES:

- **NO NEED FOR AIR INJECTION AT MILKER UNITS!** Instead of blowing the milk through the milk line by injecting air into the milker units, as is necessary with conventional milking systems — with the ZERO CONCORD, the vacuum in the milk line draws the milk in a solid column through the milk line into the vacuum bulk tank.

This prevents air agitation and foaming of the milk — a cause of rancidity. And keeps air-laden bacteria and odors out of the milk. **RESULT — higher-quality milk.**

- **NO VACUUM FLUCTUATION — SAFE, FAST MILKING!** You get the absolute, uniform and low vacuum at each individual cow that's necessary for safe, fast milking.

- **NO EXPENSIVE, HARD-TO-CLEAN RELEASER OR MILK PUMP NEEDED!** Vacuum takes the place of this costly equipment. And does away with the agitation and hazards of these complicated, mechanical gadgets.

- **"PUSH-BUTTON" SELF-CLEANING AND SANITIZING OF MILK LINE, VACUUM LINE AND BULK TANK!** The ZERO CONCORD is the first, complete milking system that has "push-button" clean-up of the entire system.

- **TOTAL VISUAL MILKING AND CLEANING!** You get visual milking from cow to tank. And total observation of vacuum and milk lines for cleaning.

- **YOU'LL BE PLEASANTLY SURPRISED AT HOW MUCH MONEY YOU CAN SAVE!** Because the ZERO CONCORD does away with the milk pump, releaser and other unnecessary, costly items.

SEE YOUR ZERO DEALER — OR MAIL COUPON for full information about the new ZERO CONCORD system today!

"OUR PRODUCTION INCREASED WITHIN 3 DAYS"

—Says LEON T. HOWE; Hunt, New York

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"We had no problem with the cows changing from our old milking system to the new Zero Concord. The cows milk fast and milk out clean. We have saved about 2 hours a day milking and cleaning up over the old installation. We are very pleased."

Leon T. Howe



MAIL COUPON FOR FULL INFORMATION!

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Please send me, FREE, full information about the new, revolutionary ZERO CONCORD TWIN-VACUUM COMPLETE PIPELINE MILKING SYSTEM.

I am interested in this pipeline milking system for a:

☐ Parlor ☐ Stanchion barn ☐ Bulk tank
☐ I am interested in a Dealer Franchise

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DO YOU HAVE A BULK TANK?.....ITS AGE.....

SIZE OF MY HERD.....

ADDRESS.....PHONE.....

TOWN.....STATE.....

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OCTOBER 1966



American Agriculturist

and the

RURAL NEW YORKER

FOR THE NORTHEAST FARMER



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earlier
freshening
replacements
fast!**



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Now...here's an all-new Purina calf-growing ration, tailor-made to help you take greater advantage of future favorable milk prices.

It's New Purina Calf Growena, a specially formulated dry calf ration to help you grow herd replacements fast, breed them early, freshen them between 22 and 24 months . . . to take advantage of high milk prices.

Calf Growena helps you feed calves at low cost from two to six months, yet gives them the protein and energy they demand. It's fortified with vitamins and minerals growing calves need. Calf Growena is a sweet and tasty coarse ration too . . . the kind calves really clean up.

New Calf Growena "teams up" with Nursing Chow and Calf Startena to give you a new, low-cost, fast-growth program.

See your Purina dealer. If he doesn't yet have new Calf Growena, he will soon . . . just when many fall calves will be

ready for the nutritional boost this fine new ration can give. Follow these feeding recommendations:

THE PURINA PROGRAM FOR GROWING HEIFERS FAST AT LOW COST

Birth to 3 days—colostrum.

3 days thru 4 or 5 weeks—Nursing Chow, a milk-base milk replacer with extra vitamins and minerals plus a powerful antibiotic to guard against scours.

3 days thru 2 months—Purina Calf Startena, a dry calf ration with an energy-protein balance that helps grow calves fast. Feed Calf Startena free-choice.

Thru 3rd month

NEW Purina Calf Growena free-choice.

Thru 4th month

NEW Purina Calf Growena—6 lb. per day.

Thru 5th and 6th months

NEW Purina Calf Growena—4 lb. per day.

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Start Purina heifer growing program.



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American Agriculturist, October, 1966



American Agriculturist and the **RURAL NEW YORKER**

FOR THE NORTHEAST FARMER

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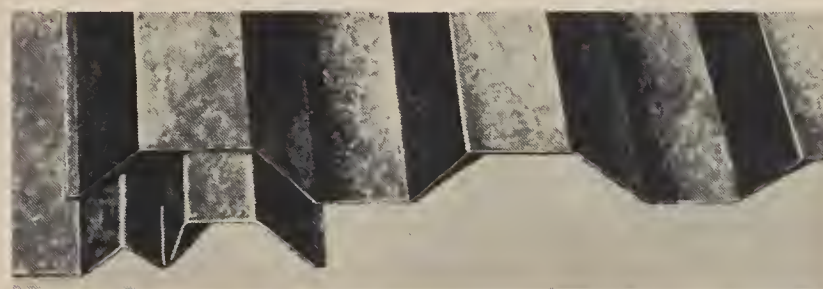
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EDITORIALS

by GORDON CONKLIN



MEDICAID

The political scene certainly has its interesting ironies . . . Republican Rockefeller is now stoutly defending Medicaid as "progressive legislation," and Democrat Sam Stratton calls it "clearly unreasonable and excessive in character."

As Stratton so ably pointed out in recent Congressional debate:

1. Title 19 of the Social Security Law provides federal money that would replace a portion of State and local funds for certain welfare purposes. However, full federal aid is conditional on maintaining "level of effort" in State and local expenditures, so New York had to find some other welfare purpose on which freed State funds could be spent.

The New York Legislature elected to spend this "saved" State money by enlarging an existing State medical welfare program, a change that would include many more people who would become eligible under liberalized income standards.

Stratton said, "It should be clearly pointed out that the bills of these people between 21 and 65 who will be getting this free medical assistance in New York will be paid for entirely by State funds. There will be no Federal contribution for them at all . . . only for those who are blind, disabled, or members of families of 'dependent' children as defined by law. This point has never been very clearly understood in discussions of the New York State program; namely, having the Government pay all the medical bills of able-bodied citizens between 21 and 65 whose incomes are in the middle income bracket, is not a program underwritten by the Federal Government and is not a part of title 19."

Editor's note: Don't buy the idea that Title 19 "forced" New York legislators to sweeten the trough to the extent they did. They did it out of the kindness of their political hearts.

2. The Medicaid program makes 45 to 50 percent of the State's population eligible for medical help, in contrast to only 4 percent who were receiving such welfare aid prior to Medicaid. Included in this eligibility are persons whose income is well above the State's average annual family income of \$5400.

Editor's note: The State Legislature placed only minimums on income eligibility, actually gave State Welfare Department a lot of leeway in setting income eligibility maximums . . . which are already being moved upward.

3. Total federal share of cost of New York's program would amount to almost twice the amount allocated by Congress for the operation of Title 19 for the first year for all 50 states. The Department of Health, Education and Welfare estimates the cost of Medicaid by 1970 in New York State to be \$1,400,000,000 annually.

Editor's note: The debate over "guns or butter" has been settled . . . it's to be guns and caviar!

Not long ago, I heard a speaker jerk some tears by telling his audience how Medicaid would have prevented some tragic case histories which he skillfully related. The facts are that hardly anyone is opposed to public assistance for such needy cases . . . but a program including half the State's population is not necessary in order to help the truly "medically indigent." Dr. Stephen Blatchley of Groton, New York, says, "I defy anyone to find a case of refusal of medical services to anyone truly in need and medically indigent

under programs existing just prior to Medicaid."

Opponents of the plan as it is now are for aid to those truly unable to care for themselves. But to label half our populace as incapable of self-support does an injustice to the abilities of many; at the same time it forces their neighbors to shoulder not only their own burdens, but those of some whose material standard of living may exceed the ones doing the paying.

Politicians are hoping for the usual cycle . . . a great outcry, followed by quiet as taxpayers forget the whole thing. If you are interested in fighting this undermining of personal integrity, and a new penalty on those who "try harder" by paying their own bills, then do two things:

1. Send some financial support to the Citizens Committee for Responsible Government, Manlius, New York 13104. This organization is working to seek amendments to Medicaid that will make it realistic . . . via legal and legislative action.

2. Write or call your representatives in the State Legislature and tell them how you feel about it.

WELL DONE

Ed Foster, executive secretary of the New York State Farm Bureau, and Harold (Cap) Creal, director of the New York State Exposition, were honored at the last Exposition banquet at Syracuse. Both are soon retiring from their respective duties.

These men have served long and well the rural people of their State . . . service that also benefitted urban families. They richly deserve the gratitude of us all . . . and typify the kind of leadership so essential to develop and maintain a constructive society.

A TALE OF TWO FARMERS

Once upon a time, in the far-off land of Lactavia, there lived two dairymen . . . Upan Adam on one side of the road, and neighbor I. Blinders on the other.

Now Mr. Adam sold milk at retail . . . not very much, though, because only two people knew he had it for sale. Then one day he put up a sign, "Milk For Sale," and business picked up.

Neighbor Blinders saw what was going on and began getting material ready for a sign, too, but he had a smart cow . . . Bright Bossy (called BB for short) . . . who talked him out of it. Now this was a very intellectual cow, as shown by her soulful appreciation of a modernistic painting on the side of the barn, put there by the spreader when it happened to be pointed that way as its drive gear was accidentally engaged.

BB argued, "It costs money to build signs . . . and would take the feed right out of our mouths." Blinders listened, because everyone agreed that this cow could have become a successful politician if she hadn't once been a Red Dane. Now, no matter how much whitewash she put on, she still ended up pink.

By now, Farmer Adam was selling so much milk that he had money to build a larger barn, a new milkhouse, and a bigger sign that read "Enjoy the High-Protein Drink With Those Who Think Young."

BB had a fit over that! "There oughta be a law requiring advertising to stick to the bare facts that milk is the lacteal secretion of the mammary gland!"

Farmer Blinders wasn't listening, though, because he was gloomily looking at all his unsold milk. Finally he said, "I think I know what we need."

BB asked eagerly, "What? A subsidy for unsold milk? A tax on Upan Adam's advertising? A quota on his production?"

Blinders looked across the road at the traffic jam of customers and replied, "Nope . . . what we need is sales!"

BREAKTHROUGH

Nutritionists are saying that the most significant development in agriculture of this decade may be the development of high lysine corn. Briefly, it means this corn grain would be higher in protein than present varieties.

The world as a whole is short of protein . . . a situation taking a terrible human toll in many underdeveloped countries, where children are permanently retarded mentally because of too little protein in their diets. This is especially true in many of the warmer parts of the world where corn is already the basic energy source of the human diet.

Here's just one of a number of examples of the value of basic research. Highly skilled scientists spend years probing the secrets of the seen and unseen . . . and finally transform our world with such things as penicillin, hybrid corn, artificial insemination, and mechanical power.

They probe because they must . . . the fires of insatiable curiosity would consume them unless they were used to fire the boilers of research. Anyone who has seen the miracles wrought in human life by their discoveries cannot help but support their efforts.

PREDICTION

Gazed into my crystal ball the other day and as a result will make a prediction . . . Bobby Kennedy will try for the presidency in 1968, and Mrs. Jacqueline Kennedy will be his choice to run for vice president. This would be a combination that would be hard to beat at the polls!

GUESSTIMATES

Hog prices in July and August have made many people uneasy about the accuracy of USDA farrowing information. Department figures showed sows farrowing from November '65 to February '66 as up 4 to 8 percent. But smaller numbers of hogs, compared to the year before, have been showing up at the market recently. Sow receipts are up at major markets, so it's unlikely that a large hold-back of gilts is occurring to account for the discrepancy between slaughter and farrowing data.

Not many years ago, egg prices broke far more sharply . . . and for a longer period . . . than could be accounted for by USDA figures of numbers of laying hens on farms. Some people in the poultry business also question the accuracy of Department figures on chicks hatched.

Memo to USDA people: farmers and agribusinessmen depend on the figures you develop that show trends in production and likely price pressures for the future. Perhaps some changes in methods are needed to sharpen up their accuracy.

Memo to farmers and businessmen of associated industries: maybe there are some ways we can help government people do a better job. Let's be constructive instead of just complaining!



FARM DOLLAR GUIDE

APPLY FERTILIZER this fall? Agronomists pretty much agree that phosphorus (P) and potassium (K) can be applied in fall, but plenty of argument about nitrogen (N). More experts recommend applying all three (N, P and K) in fall than was once the case, but there is abundance of research evidence that nitrogen losses during winter can be considerable.

Possibilities for greater labor efficiency and prevention of spring soil compaction have led increasing numbers of farmers to apply at least part of fertilizer (especially P and K) in the fall.

U.S. CROP PROSPECTS are for a total production around 7 percent below '65. **WHEAT** is forecast at 1.3 billion bushels, 3 percent below last year; **CORN**, 4 billion bushels, 5 percent below '65; **FALL POTATOES**, 6 percent below last year but 6 percent above average. **Maine crop above average**, Long Island up 2 percent. Upstate New York up slightly from last year. **EGG** production first 7 months down 1.5 percent from same period in '65; numbers of potential layers on August 1 were 1 percent above year ago. **MILK** production has been around 3 percent below '65.

APPLES, 127.7 million bushels, 6 percent below '65 but 2 percent above average. **FEED GRAINS**, 6 percent below '65, but 3 percent above average. **DRY BEANS**, 19.2 million cwt., up 17 percent. **PEACHES**, 73.1 million bushels, down 1 percent from '65; **GRAPES** (Great Lakes area) down 17 percent from '65.

CANNIBALISM by growing and laying hens has been controlled in some houses by light intensity without debeaking. Birds will perform at .5 foot candlelight intensity, but better to have 1 foot candle so as to have margin of safety for dulling of lights as dust accumulates on them.

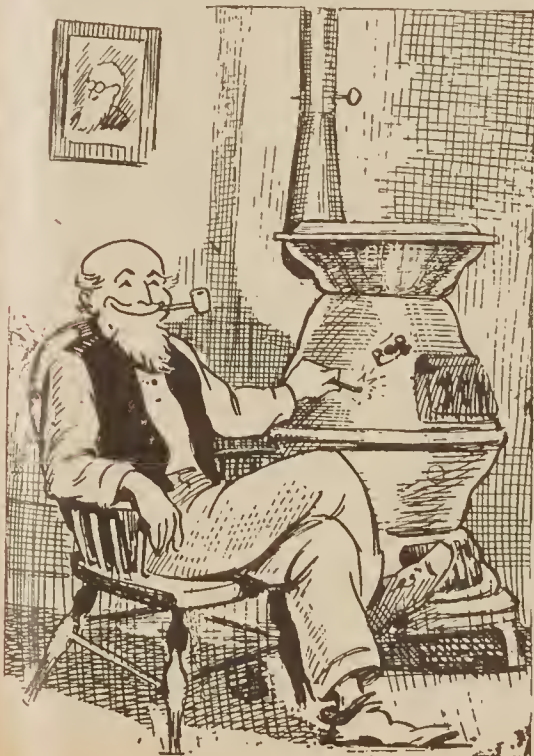
No debeaking means less stress and no eating or drinking limitations. Disadvantages of low light level...people find it a bit dark for handy work in the henhouse.

LIVE BEEF futures contracts are all set for Chicago Board of Trade, coming close on heels of similar move at Kansas City.

APPLE CROP in New York State is estimated at 23 million bushels, about the same as last year. However, the crop to the West and South is smaller, and growers are looking for a favorable market.

The Song of the Lazy Farmer

This time of year sure tucks me; I'm always happy as can be when winter time draws near again, 'cause it's the only season when I can relax



beside the fire and not arouse Mirandy's ire. It's not like spring, when she screams loud if I don't help get fields all plowed; in summer, when small grain gets ripe, my loafing gives her cause to gripe; in early fall, a million chores all pressure me to get outdoors, and if I try to loaf and slack, she's sure to make some nasty crack.

But soon as sky shows signs of snow and icy winds begin to blow, the heat is off and I am free to do my loafing openly. The choring won't amount to much, just feeding cows and hens and such; an hour of milking twice a day...that job's Mirandy's anyway; some eggs to gather now and then, and I cannot remember when Mirandy ever did allow me in the henhouse anyhow. And so the next few months will be a mighty pleasant time for me; instead of being forced to sneak off where I cannot hear her speak, I now can squat in my own chair and know the boss won't even care.



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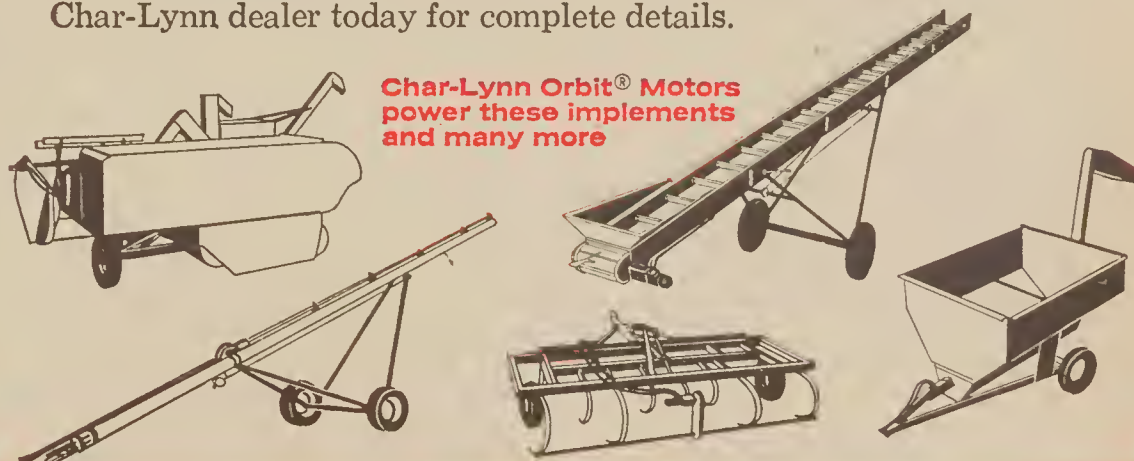
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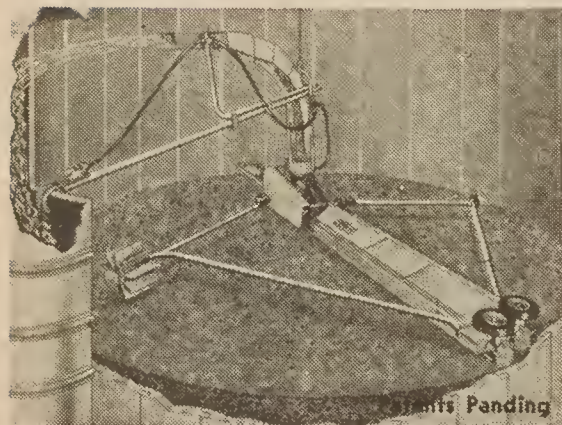
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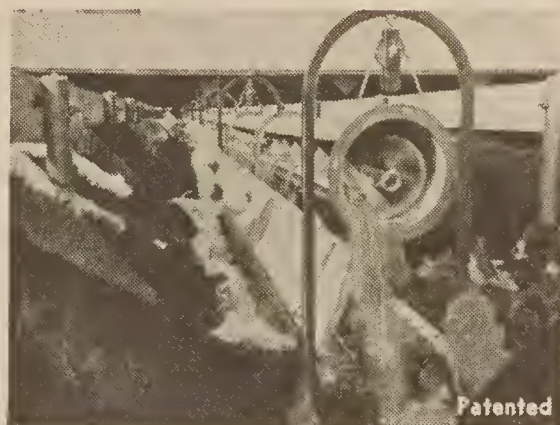


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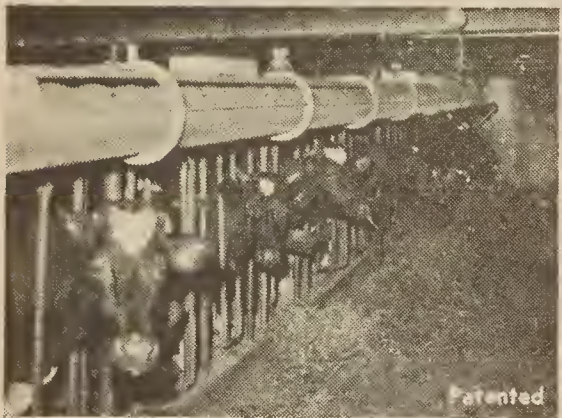
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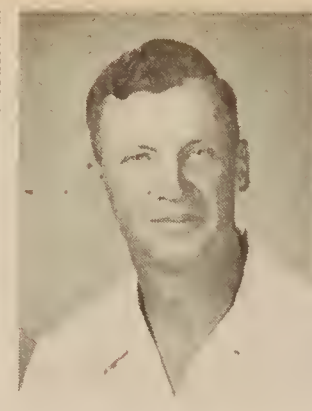
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Gayway Farm Notes

by HAROLD HAWLEY
Weedsport, New York

OATLAGE

For the second year we wind-rowed and chopped part of our oats and fed them as oatlage. From the standpoint of harvesting, this is tremendous. It's so much simpler to get the oats cut while they are still standing, and then once over with the chopper and it's done. No worry about bad weather, green stuff, seeding so large it gets mixed in with the grain, etc. In fact, one of the big pluses is getting the crop off so the alfalfa seeding really starts to come.

So much for the field end of the deal . . . which is all to the good. At the barn the cows welcomed the change from alfalfa haylage. I'm not going to say they milked better on oatlage than on haylage, but as far as we could see they did as well. In the silo was the only sour note. The oat crop did not seem to pack as tight as haylage. It kept 100 percent, but seemed to stay soft and loose enough so that the silo unloader would, almost daily, bury itself. In fact, it got so bad that two of us fed . . . one in the silo to keep the machine going and the other downstairs to run the switches. Once we fed through the oats and back into haylage our troubles ceased. Next year we plan to try to harvest haylage and oats at the same time so they will be mixed in the silo and possibly feed out better.

QUALITY AT THE TABLE

When we read that in various countries around the globe a sizable percentage of the populace goes to bed hungry most nights, it takes a little gall to do much complaining about the quality of what we have. Heavens knows, most of us eat too much . . . and most of what we eat is the best. Just think, starting in June meals can be built around strawberries and ice cream or strawberry shortcake or, as far as I'm concerned, eliminate meals and have strawberries and ice cream! From there right into the season of purple berries, and soon to sweet corn and tomatoes, to be followed by crisp Macs and sweet cider. Personally, I play no favorites . . . any and all of these are my absolute favorites whenever they are available . . . except if they have lost that freshness and quality which means so much. We are fortunate in having sources for berries which assures of fresh, wonderful fruit. The tomatoes and corn are garden fresh and so are peaches from a nearby orchard. All fall we can get orchard-fresh

apples by the bushel . . . and a bushel doesn't go far either.

Then comes the day when apples must come from the store all nicely cellophane wrapped, and usually crisp and fine. But now and again somewhere between the storage and the table something has happened. The crispness is gone and the mealy soft condition is with us. Knowing that the fruit comes out of storage in good shape, I have to assume that it loses quality in the warehouse and on the display counter of the local stores. How consumption slows up following purchase of a poor package! It's the same with milk or eggs or meat. Our whole distribution system works such miracles in providing excellent food from everywhere that the occasional lapse should be no reason for undue criticism . . . but is a concern of every producer. It happens we are at the consumer end of the apple chain, but with milk it's the other way around and we know that for various reasons consumers of milk sometimes find reason to complain.

This whole marketing thing is pretty complex, and I'm sure it's a difficult thing to trace back an inferior-quality product and to determine what went wrong and where; yet this obviously is the key to eliminating those situations which keep us from expanding markets to the utmost. I sometimes wonder if, in addition to doing a better job of promoting our products, we may not have an opportunity to do ourselves some real good by an all-out effort to make every handler of our produce fully aware of his role in the preservation of quality.

Seems to me there is a surplus of information about how to prepare everything from soup to nuts . . . but very little about how to care for the food from time of purchase till use. Better we all learn how to keep the food at its tip-top best right up to cooking or serving time.

SPEAKING OF DIVERSITY

A friend was speaking about the "mob" at a state park on one hot Sunday afternoon in August. He inferred that most of the people in the area were there. We got to listing all the places the people in the area actually were that Sunday afternoon or any Sunday afternoon. The list is long, and serves to illustrate what a wonderful variety of recreational and relaxing opportunities we have . . . all the way from eating out to boating.

(Continued on next page)

American Agriculturist, October, 1966

skiing or fishing, picnicking, bowling, swimming, or watching horse shows or polo games, to joining the family reunion, golfing, flying, or just riding around. It's a marvel of our times that with so much leisure time we have developed such an endless appetite for enjoyable activities.

Compare this to so many places where the opportunities to do something healthy and wholesome are limited. I remember spending a Sunday afternoon in the back country of Argentina several years ago . . . and what a long day it was. I guess one could make up a list of things to be done even there if he had to . . . ride horseback, court a senorita (if you happened to be single), sleep, read, or write letters . . . and that pretty near finishes the list. Our problem here is not to find something to do but to choose wisely to use our free time in the most enjoyable, enriching way. What a wonderful predicament to be in . . . to have so many good things to do.

SILO GAS

Every fall we get a warning letter from the Extension Service pointing out the danger of silo gas. This is all to the good. It has come to our attention that there is now on the market equipment which would enable anyone to tell if there was gas present and how serious or dangerous the concentration. I doubt if many farmers will buy such, although it isn't too expensive, but I'll bet a county agent with such a gadget in his car would suddenly find his popularity rating upped if word got around that he could check the situation out for a farmer who had doubts!

UREA IN CORN SILAGE

We were pretty pleased with results obtained by adding 10 pounds of urea to each ton of corn silage as it went into the silo last fall. The biggest drawback was the headache of climbing up on each load and spreading the urea around. To get away from this nuisance we have built a hopper over the blower (actually right over the auger). It holds 80 pounds or about enough for two loads. The sides are tapered to a narrow flat bottom, and the taper is gradual so as to be sure the stuff will run. If it picks up much moisture it doesn't just flow like sugar. A slide at the bottom regulates the flow. Probably if one could conveniently find a way to run an agitator in the hopper it would insure uniform feeding. A hinged cover might also have been a worthwhile addition, especially as we frequently leave urea in overnight.

There has been some thought by some we have talked with about going to 15 pounds per ton. We claim no special knowledge. All we try to do is follow instruction by the fellows who claim to know . . . in this case, the Animal Husbandry boys at Michigan State University. They say 10 pounds

per ton, so that's what we use. At the price of protein via this route it is tempting to think of using more . . . but we are going to let someone else research that one and follow any new recommendations which may come. In the meantime, we are impressed by the warnings about too much urea being toxic for cattle.

PLANT BREEDING

Just to keep pace with the times is a chore, but I think the plant breeders are doing better than that. It looks as though we have 3 winners going for us here this year, and certainly the Northwest wheat growers have a successful new one

in their dwarf wheat.

The Cayuga alfalfa certainly is going to be good for New York farmers. It is a nice thing to get away from DuPuit's coarseness and still get the rapid growth. All this plus long life. Can't lose on this one!

One year may be too soon, but the Orbit oats were a success for us last summer. They stood well and yielded very well, and were a heavy, meaty oat. What more does one need? Nothing but disease resistance, and Orbits are reputedly pretty good in this respect.

The corn breeders seem really to have something in the new XL (single cross) varieties. So far it looks like they may replace some of the 4-way crosses.

One of the most exciting new crops is the dwarf wheat which, because of its short stiff straw, can really be fed. Reports of 100 bushel yields are not uncommon. Think of it . . . 3 tons of feed or salable grain per acre! While most Northeast dairymen have traditionally set high value on a good growth of straw to insure lots of bedding, it is time to re-examine our notions on this one. It's far more sensible to shoot for the top grain yields, and let the straw tonnage fall where it will. It's been all too apparent over the years that we can't really have both. If we have tall grain and feed it heavily, it just ends up flat. These dwarf grains can stand the heavy feeding we'd like to be able to give our grain.

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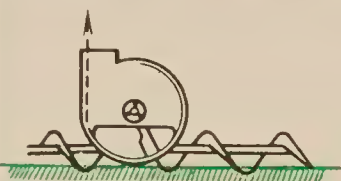


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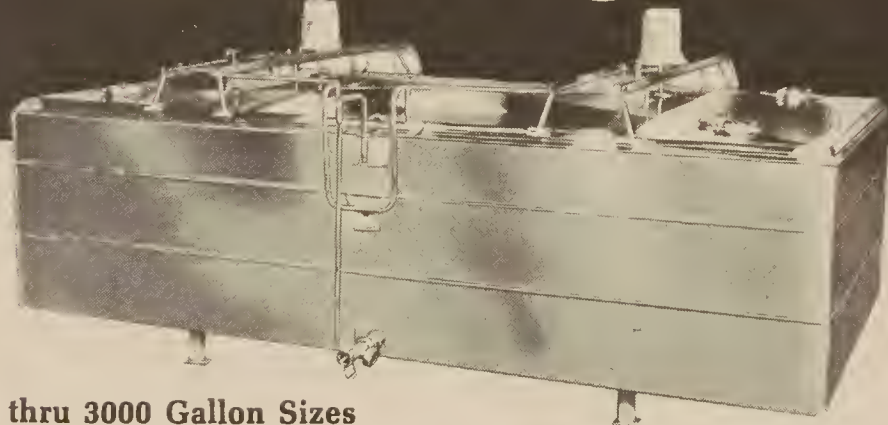
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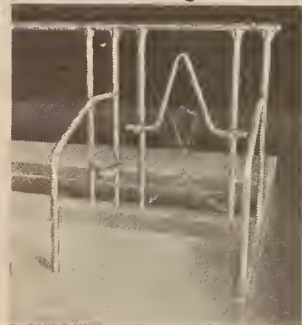
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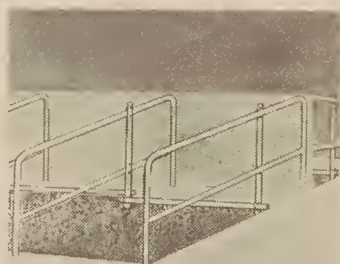
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Personal Farm Experience



Mechanical harvesting of grapes on the Howard Green farm, showing how the machine harvests both sides of the row at the same time.

GRAPE HARVESTING

I grow fruit, including 45 acres of grapes, 10 of sweet cherries, 5 of sour cherries, 7 of peaches, and 8 of red currants. All the fruit except the peaches is processed. A large part of the peaches are sold at the farm.

We do some irrigating from a spring-fed pond. When needed, water goes on young grapes, peaches and currants. We can cover 2 acres at a time, putting on an inch of water in 2½ hours.

We have trained 7 acres of grapes to be harvested mechanically. I believe that the labor situation will force most grape growers to adopt it. At least one company has a machine that will harvest both sides of the row at the same time. The grapes are shaken off and caught on a conveyor, while a blast of air removes the leaves.

Naturally, such a machine is costly. Probably many grapes will be custom-picked.

You might call me a part-time farmer. I have a patent on a grape hoe that's operated hydraulically and we make around 400 a year, which are sold over a wide area. Even with chemical weeding some cultivating is desirable, especially on young grapes before chemicals can be used.

I am also working on a sprayer especially designed to spray grapes that are trained for mechanical harvest. — *Howard Green, Portland, N.Y.*

FORCE-MOLTS HENS

Up to three years ago we had a small dairy of 22 cows, around 1800 hens, and a considerable acreage of cash crops.

We felt that we must either enlarge the dairy or get out, and after much thought we sold the cows and built a hen house 40 x 140 feet to hold 6500 hens in cages holding 20 birds per cage.

I used to throw the small flock of hens into a molt and keep them the second year, so I decided to try it on the larger flock. After the pullets lay about 15 months, I feed them only corn and oats for two weeks and then put them back on a laying ration. In six weeks they have molted and are laying at a 50 percent rate, and up to 70 percent in eight weeks.

We like the plan. Some poultrymen say the eggs from the old birds do not grade well, but our grade holds up very well.

We clean the pit under the cages once a week. We find it is a big help in controlling flies, and I never did like the idea of cleaning once a year.

We buy baby chicks and grow two lots of pullets, starting one in April and one in August.

We grow 100 acres of corn, which we sell and then buy a poultry ration. We also have 40 acres of red kidney beans, and a considerable acreage of oats and hay. To eat the roughage we raise 20 to 25 dairy heifers for sale. — *Marchant Nielsen, R.D. 3, Geneva, N.Y.*

PLANS FOR MORE

Milk is my only source of money, so I specialize in producing it and plan to produce more.

Right now we are milking 75, but plan to go to 105. To do this we are adding 90 feet to the stable but making it one story as we do not need the hay storage. It's a stanchion barn, and we are adding to the gutter cleaner to handle manure from the cows we will add.

John Charlesworth

Because we specialize in milk production, averaging a ton-and-a-half a day . . . and planning on two tons . . . we buy our cows from Canada and do not grow replacements.

Some hay is grown on the farm, but we also buy some. We produce about 400 tons of silage, but buy a lot of corn and oats for cow feed.

I bought this farm from Dad 7 years ago, but he is still my chief help. We do hire a couple of boys to help in haying if we can get them. Incidentally, cutting down on crop growing also helps to keep equipment costs down.

In building the barn, I hired one carpenter, but Dad and I did the balance of the work.

We started testing last fall, and so far production is at the rate of around 14,000 lbs. per cow per year. — *John Charlesworth, Little Valley, N.Y.*

BEET GROWING

In '65 I grew 36 acres of sugar beets, and have about the same acreage this year. A year ago we just about got our cash costs back, and furnished the land and labor free. This year we have had better weather and it looks like we might get 15 tons per acre. We also learned some things.

I feel that sugar beets will be a good cash crop for the man who is willing to take the trouble to
(Continued on next page)

grow them right. It seems to me that we must be more particular in choosing the soil to grow them, but there is a lot of good soil in the northern half of Cayuga County. Our experience with chemical weed control has been disappointing. Chemical weed control is costly, and if it doesn't work we feel it's better to save the money and hire migrants to clean out the weeds. We use a mechanical thinner, and I believe we get best results by thinning twice. We might even go through threetimes, taking out some plants each time. It's important to do the thinning at the right time. Then, if necessary, a few more can be taken out when they are hoed. Some growers leave too many plants.

We bought a planter and a harvester and, because our acreage is relatively small, we do some custom work.

Our principal enterprise is raising hogs. One year we sold 600 through "Empire" at Caledonia. Along with them we have a breeding herd of 30 to 35 polled Hereford cows which we plan to build up to 50. Then we sell some hay and grow certified seed of oats and wheat.

Our idea is to grow all the feed for the livestock except for some high protein supplement. This year we are drying some second cutting alfalfa which we will grind into the hog mixture. — *LeRoy Poorman, Waterloo, N.Y.*



Paul Corwith of Water Mill, New York

PERMANENT CHANGE

This farm had a dairy until 1951. Then until 1960 we had 3,000 laying hens in the remodeled cow barn. At that time we decided that we must either get into poultry in a much bigger way or get out entirely. We needed more storage room for potatoes so we sold the hens and made the building into a potato storage. Now we (my brother Pete and I) grow 175 to 180 acres of potatoes.

Along with other potato growers we have increased mechanization, partly to replace scarce labor, partly to reduce the cost of producing a bushel of potatoes.

On most Long Island farms, potato production per acre has increased, say from 400 to 500 bushels per acre. More fertilizer has been one reason. From a ton of 5-10-5 per acre, some growers went as high as 2 tons. Then fertilizers became more concentrated and we now use as much as 1,700 pounds of a 10-20-10 per acre. We irrigate about 25 percent

of the crop. On the north shore of the Island, growers put water on close to 90 percent of the potato acreage.

There has been a change in varieties. Norgold, a variety similar to Russett Burbank, is popular. Katahdin is standard; it makes a good-looking tuber, is adapted to mechanical harvest, and stores well.

We are putting up more small bags, anywhere from 5 to 50 pounds.

We also grow 15 acres of peaches, which are sold at roadside stands. — *Paul Corwith, Water Mill, Long Island.*

Editor's note: A recent survey showed the following varieties and

acres of Long Island potatoes: Total acres 39,297. Katahdins 73 percent; Chippewa 9 percent; Norgold 5 percent; Russett Burbank 4 percent. Other varieties include Keswick, Cobbler, Kennebec, Onaway, Gem, Green Mountain.

FROM FARM TO "CHIPS"

Back in 1952 we built a potato chip plant, largely as a means of providing a steady market. Before long we found it necessary to get new machinery to stay competitive... and also to operate the year 'round to be efficient.

Finally we separated into two businesses. Austin Warner and Austin, Jr., grow 260 acres of po-

tatoes, while my brother and I (Eugene and Dewitt) run the chip plant.

We buy all the potatoes from the farm, and contract for part of the crop of 12 to 14 local growers. In the spring we also buy some potatoes from the South to use in July.

We pay growers the same price year 'round and every year... a price a little above the average market.

The plant hires 95 people, and can process 1500 cwt. of potatoes per day. We also process and package popcorn to provide more work. Five years ago we merged with the Trial Company. — *Eugene and Dewitt Warner, Riverhead, L.I., N.Y.*

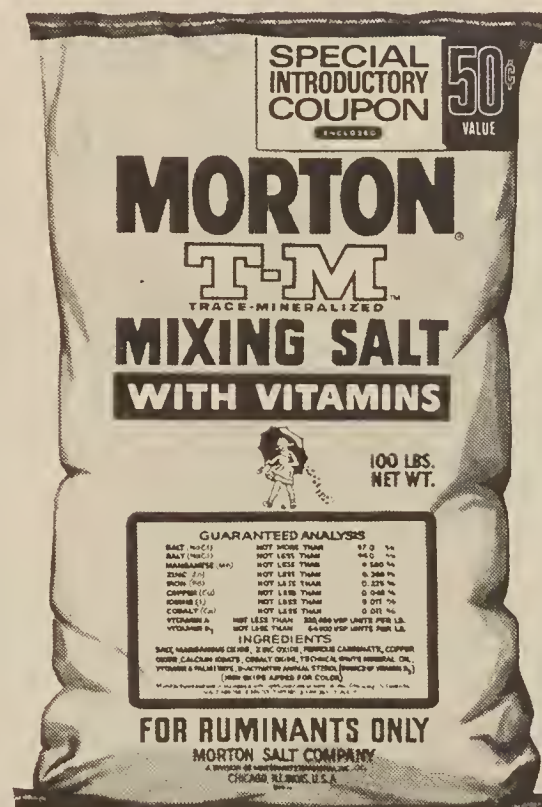
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pany. Uniform blending of all ingredients means built-in quality control and convenience for your own mixing program.

• And now, as a special introductory offer, every 100 lb. bag you buy has a money-saving coupon inside, worth 50¢ off on your next purchase of the same size bag. There is a 25¢ coupon on the 50 lb. bag. This offer expires Feb. 28, 1967.

• Morton T-M Mixing Salt with Vitamins provides new mixing convenience, economy, and quality control. Morton is more than salt; it's ideas in action.

Morton Salt Company



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LOOK IN HER MOUTH

I can't think of October without being thankful that I live in the Northeast. In 1946 I sat in a movie theater in Honolulu watching a travelogue of New England. It had been three years since I had seen my beloved Berkshires in their fall colors, and when a fall scene flashed on the screen it made me as homesick as I could ever imagine. It was the fall of 1947 before I saw these hills in their glorious colors again, and I don't want ever to miss another October at home.

Farm animals must enjoy October, too, since we have less calls for sick cows, horses, etc. than in any other month of the year. Even the dogs who have itched all summer are relieved after the first real frost, and are no longer weekly visitors to the office. By tradition, heifers and other young stock coming in off pasture should be fat and slick; if they aren't, the good cow man should try to find the reason. When one particular animal suddenly becomes gaunt, loses flesh and doesn't eat, one of

the things to check is her mouth.

Usually an animal with something caught in her mouth will slobber and drool. However, since these animals sometimes don't take in much water they can't drool much, and the diagnosis (which should be easy) is missed. Sometimes animals that are in the milk herd get things caught in their mouths as well as heifers and steers.

Lost Weight

A few years ago a call came in to recheck an acetonemia case in a small herd. This cow had had acetonemia off and on for the first few weeks after freshening, but for two weeks had been fine. The herd was still on good pasture, was

getting corn silage and a fair amount of grain. This particular cow had lost a lot of weight in a two-day period, would lap at her grain, and kept pushing at the drinking bucket with her nose but didn't swallow any water. She looked like a typical "nervous" acetonemia.

The animal's temperature was normal, her skin was tight, giving evidence of dehydration. Urine was obtained and what was expected to be a positive test for acetonemia turned out to be negative.

Rabies was considered, of course, though we don't have any in this area. Re-examination didn't turn up any startling symptoms, so it was decided to treat her symptoms intravenously with dextrose, fluids, and vitamins. A brain tumor or injury was suspected. No examination of the mouth had been made yet, as that would be done when the nosers were put on to administer the intravenous. No one likes to stick his hand in an animal's mouth if even a remote possibility of rabies exists, and of course rabid animals often act as though they have something caught in their mouths.

Once the nosers were applied the cow's tongue was grasped and her mouth pulled open. A foul odor was noted immediately, and the beam of a flashlight revealed something between the upper molars that didn't belong there. It couldn't be moved with a bare hand, so a large forcep was applied and out came a piece of bone as big as a boy's fist, just the right size to wedge across the mouth between the inside of the teeth.

This ruled out the brain tumor... but still didn't rule out rabies, since rabid animals often chew on wood, bone, stones, or what have you. Leaving the animal alone for five minutes gave the answer, since she immediately began to drink and swallow water. Rabid animals can't swallow. Fresh grain was put down after clearing the manger, and she began to eat. Needless to say, everyone concerned... including the cow... was greatly relieved.

Watch for Infection

This sort of thing reminds us of all sorts of tales about things caught in animals' mouths, from tuna cans to corncobs. Of course, you can save a veterinary fee if you spot these things yourself. However, even if you don't have rabies in your area it is not a good idea to reach into the mouth of a cow if you don't know what you are doing. Always confine the animal as securely as possible, preferably in a stanchion, or in such a way that she can't lunge forward. A pair of nosers is used to stretch her neck out. Slip your hand in over her tongue and pull the tongue out sideways and down. Then use a flashlight to look first before feeling. If anything of any size is there you should see it. If you want to try your hand go ahead, but be sure to wash well with good soap and water afterward to prevent infection to small

(Continued on page 11)

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And you can take advantage of Atlantic's budget payment plan. You spread your winter heating oil payments over 10 months. So each payment becomes smaller, easier on your pocket-

book. And of course there's no extra charge for this service.

Now that we made our proposition, take advantage of it. See your Atlantic rural salesman or Atlantic distributor and find out how you can solve your heating problems with dependable, clean-burning Atlantic heating oil.

For quality gasoline, diesel fuel, motor oil, heating oil, kerosene... for prompt deliveries, loan of equipment, complete service... call Atlantic Richfield Company or your Atlantic distributor.



Hot proposition for cold winter nights!



Food For The Spirit



by Robert Clingan

"THROUGH THE VALLEY"

A pastor asked a parishioner with deep and serious needs if she would like him to read from the Bible and what portion she would prefer. Very perceptively she replied: "Pastor, please read the 23rd Psalm . . . and when you come to that section 'through the valley of the shadow of death,' please emphasize the work through."

Translators of the Bible from its original Hebrew tell us that this phrase should read: "through the valley of deep shadow." This is also an optional reading found in the margin of every copy of the Revised Standard Version of the Bible.

David's Psalm, as it is commonly known, very likely reflects the experience of the Palistinian shepherd. Those who have visited the Holy Land have discovered that at certain seasons of the year the shepherd has to move his sheep from lower pastures that in that semi-arid land have dried up to higher elevations that remain green. In moving his sheep from one plateau to another, the shep-

herd has to lead them through a rugged mountainous valley. This gulf or chasm . . . or aroya, to use a Western term . . . abounds in treacherous hazards. There are dangerous bypaths that end in precipices; there are caves and natural hiding places for predatory wild animals.

It is the good shepherd, wise to the perils, loving his sheep, and capable of protecting them, who leads them through the valley of deep shadow and great danger.

But this Psalm is not about sheep. It is about people. It is not even about other people . . . it is about ourselves. It begins: "The Lord is my shepherd." This Psalm is about each of us and our God. At the very heart it says: "though

I walk through the valley of deep shadow, I will fear no evil, for thou art with me."

We do not choose the presence of God. He has chosen to be with us in our hours of trial and testing. Our choice is to open our eyes to His presence, unstop our ears to His voice, and to permit ourselves to be led by Him. God is our shepherd; we are his sheep. He will see us through our hours of danger and difficulty for His name's sake. We are His and He is our God.

A Psalm of David

The Lord is my shepherd, I shall
not want;
He maketh me to lie down in green
pastures,

He leadeth me beside the still
waters.

He restoreth my soul;
He leadeth me in the paths of
righteousness
For his name's sake.

Yea, though I walk through the val-
ley of the shadow of death
I will fear no evil;
For thou art with me,
Thy rod and thy staff they comfort
me.

Thou preparest a table before me
In the presence of mine enemies;
Thou anointest my head with oil,
My cup runneth over.

Surely goodness and mercy shall
follow me
All the days of my life;
And I shall dwell in the house of
the Lord for ever.

Metzler

(Continued from page 10)

cuts you are bound to get from the cow's teeth.

Cows between three and four years old often have a loose cap tooth half in and half out of the gum. If you still feel that something is in the mouth and can't find it, your veterinarian may find this is the trouble.

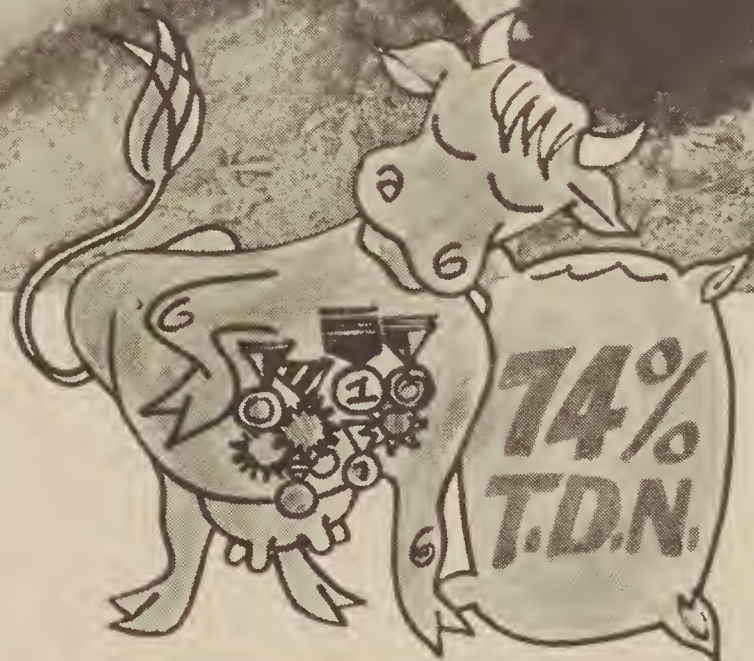
A stick or other object sometimes becomes wedged between the teeth and the cheek. This is also difficult to see. And on the hard-to-spot list are sores made from improper use of a balling gun. Always be gentle with a balling gun, and be sure it goes down between the teeth and not between the teeth and the cheek. A cow may also have sores on the tongue and gums from virus diseases.

Raised on a Farm

A few years ago a man was brought into a local hospital after an auto accident. Other than being quite drunk, little could be found wrong with him. However, after two or three days doctors and nurses were puzzled because he wouldn't talk or eat. A student nurse on the floor politely suggested to someone in charge that perhaps they ought to look in his mouth. This was done and sure enough there was the broken end of a pipe stem stuck in the roof of his mouth. The student nurse had been raised on a farm and knew that her father always looked in the mouth of any animal that wouldn't eat if he couldn't find any other reason for the trouble.

Foreign objects in the mouth may be rare, but it always pays to look.

American Agriculturist, October, 1966



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An overnight Pan American flight takes us from New York to Rio de Janeiro, and we check into our hotel on world-famous Copacabana Beach the next morning, to spend three days in what many people call "the most beautiful city in the world." One outstanding side trip from Rio will be a full-

day excursion to Petropolis, a mountain resort noted for its superb scenery and home of the unique Imperial Museum.

Sao Paula is the largest business and industrial center of Brazil, as well as one of its most charming cities. And, of course, no trip to Brazil is complete without going to a coffee plantation, so this is where we have that pleasure.

In Uruguay, we will visit the capital city of Montevideo and Punta del Este, the little Riviera city of South America.

Next comes the exciting and romantic city of Buenos Aires. We'll see all of its principal attractions and spend a day deep in ranch country, watching the colorful gauchos carrying on their regular activities. Shopping is a big adventure in Buenos Aires, too, for you'll find some of the world's finest stores here.

A short flight takes us cross country to the west coast of South America and Chile's capital city, Santiago, surrounded by the majestic Andes. Here, we'll also spend a day in the popular resort city of Vina del Mar.

From Santiago we go to Lima, Peru, where sightseeing includes Chosica, Granja Azul, and the ruins of Pachacamac. It's here in Lima that we board the Santa Magdalena for the cruise part of our trip.

Northward bound, we go ashore at Guayaquil, Ecuador, and travel into the country to see a banana hacienda. Next, we spend a morning in old Panama, before passing through the Canal in the afternoon. This engineering triumph never fails to stimulate a deep feeling of amazement and respect, whether it's your first look at the "Big Ditch" or your fiftieth!

Arriving back in New York, you'll find it hard to believe you've been gone four weeks; the days just seem to fly on any American Agriculturist tour. As always, this will be an "all-expense" trip, with everything included in the price of your ticket — transportation, hotels, sightseeing, baggage handling, meals, and all tips. We want it to be a completely carefree vacation for everyone who goes.

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Please send me, without obligation on my part, the itinerary for your South American Cruise-Tour.

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COUNTY WINNERS!

The list of Pomona winners in the 1966 Applesauce Cake Contest, sponsored jointly by American Agriculturist and New York State Grange, is now complete. These county winners will vie for top honors and a host of exciting prizes in the state contest finals to be held at Hamburg, New York, where State Grange Session will meet later this month.

Our December issue will bring you the story of the state contest, together with names of the 15 high winners, the recipe that comes in first, and pictures of all the baking champions at State Grange when the winners are announced.

Here are names of the 53 people who will bake applesauce cakes for the state contest in Hamburg.

POMONA WINNERS

COUNTY	GRANGE	WINNER
Albany	Potter Hollow	Mrs. Hector Roney
Allegany	Belfast	Mrs. Wendell Chamberlain
Broome	Binghamton	Mrs. Iva Williamson
Cattaraugus	Little Valley	Mrs. Mildred Milks
Cayuga	East Venice	Mrs. Henry Ketchum
Chautauqua	Frewsburg	Mrs. Robert Long
Chemung	Chemung	Mrs. Sue VanDusen
Chenango	Smyrna	Mrs. Kenneth Coye
Clinton	Ellenburg	Mrs. Marjorie Magoon
Columbia	East Chatham	Mrs. Helen Mowris
Cortland	Cuyler	Mrs. Edith Nash
Delaware	Franklin	Mrs. Helen Smith
Dutchess	Pine Plains	Mrs. Arthur Culver
Erie	Clarence	Miss Ruth Pagels
Essex	Ethan Allen	Mrs. Herbert Lewis
Franklin	Adirondack	Mr. Milton Clark
Fulton	Perthshire	Mrs. Elizabeth Bowers
Genesee	Oakfield	Mrs. Edwin Walker
Greene	Jewett	Mrs. Ethel Martin
Herkimer	West Canada Creek	Mrs. Gladys Williams
Jefferson	Star	Mrs. Margaret Church
Lewis	Belfort	Mrs. Genevieve Lyndaker
Livingston	Keshequa	Mrs. Helen Velej
Madison	Chittenango	Mrs. Bernice Camp
Monroe	Parma	Mrs. Guy DuSett, Jr.
Montgomery	Florida	Mrs. Lawrence Phillips
Niagara	Pendleton	Miss Margaret King
Oneida	Seifert Corner	Mrs. Roger Davis
Onondaga	Skaneateles	Mrs. Harold Loveless
Ontario	Reed Corners	Mrs. Howard Mumby
Orange-Rklnd	Montgomery	Mrs. Ida Garrison
Orleans	Gaines	Mrs. Esther Hollenbeck
Oswego	Parish	Mrs. Lloyd Ware
Otsego	Fly Creek	Mrs. Lawrence Sauer
Putnam-Wstchr	Brewster	Mrs. Wallace Butler
Rensselaer	Hoosick	Mrs. Clara Elliott
Saratoga	Ballston	Mrs. Rexford Moon
Schenectady	Glenridge	Mrs. Maude Revell
Schoharie	Breakabeen	Mrs. Gertrude Mann
Schuyler	Tyrone	Mrs. Richard Huey
Seneca	Rose Hill	Mrs. Mabel Smith
Steuben	Savona	Mrs. Pearl Whitehead
St. Lawrence	DeKalb	Mrs. Doris Cross
Suffolk-Nassau	Southampton	Miss Alice Benedict
Sullivan	Bloomington	Mrs. Henry Follmer
Tioga	Tioga	Mrs. Helen Price
Tompkins	Groton	Mrs. Percy Brown
Ulster	Lake Katrine	Mrs. Paul Stevenson
Warren	Mohican	Mrs. Mildred Saunders
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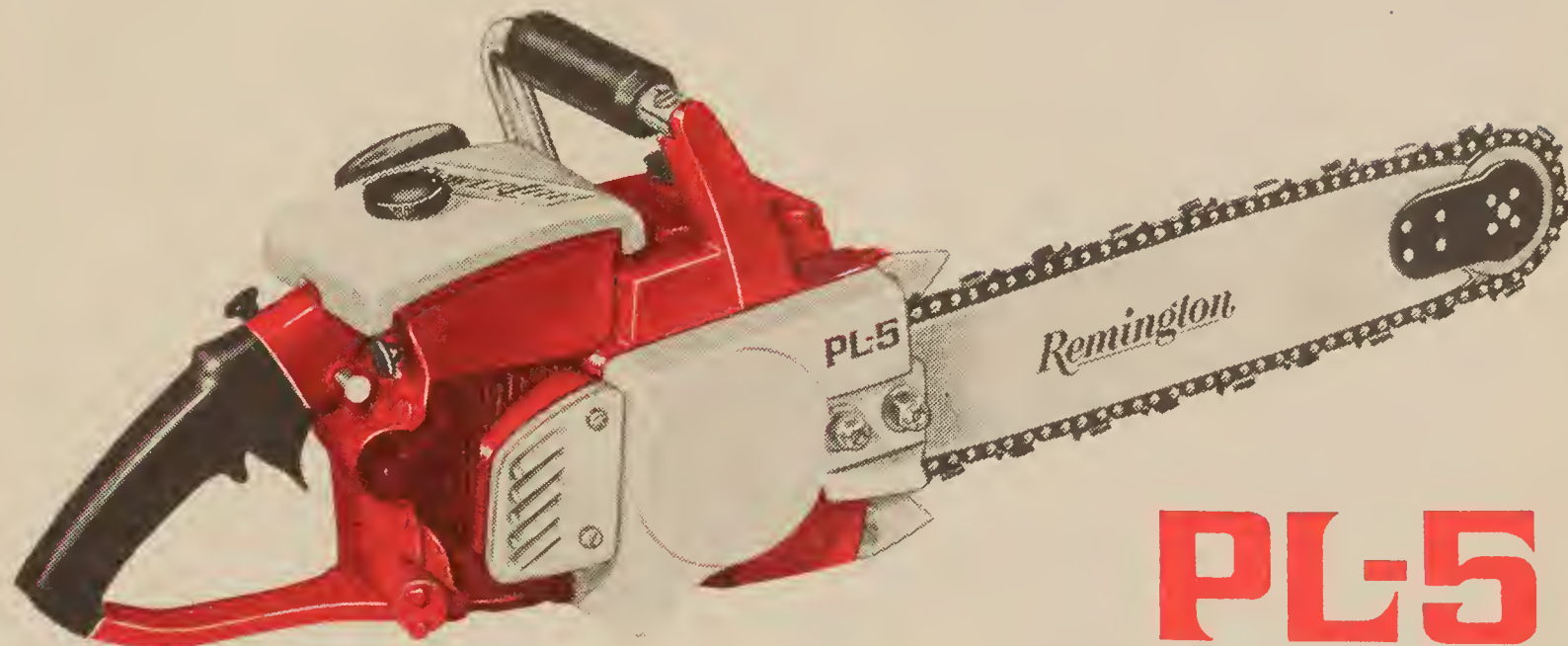
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A 1 Rental — Lynbrook
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Arkwright Inc. — New York
Art's Lawnmower Shop — Mayville
B & H Saw Sales — Elizabethtown
Bernard Barber — Morrisonville
Beadle & Co. — Richfield Springs
Beldens Saw Sales & Service — N. Ticonderoga
Bellows & May — Middletown
Biddle Purchasing Co. — New York
Stanley Bills — Northville
Blumer Supply — Weedsport
Bob's Gulf & TV Service — Thendara
Bob's Lawn & Garden Mart — Chatham
Maurice Bowers — Trumansburg
Bowman Sales & Service — Clinton Corners
Bruns Trucking — Davenport
Burgers Sales & Service — Catskill
George Burnison — Attica
Cain Tractor & Implement Co. — Cortland
Ben Caliendo Equipment Rental — Ozone Park
Cameron & Cameron — Athol
Carl's Lawnmower Shop — Patchogue, L. I.
Carpenter & Sunderland — Broadalbin
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— Centereach, L. I.
Chiavetta Bros Inc. — Wellsville
Thomas C. Chiavetta — Brant
A. R. Christiano Hardware & Implement
— Leicester
Clarence Lawnmower Service — Clarence
Clarkstown Equipment — Spring Valley
Clinton Farm Supply — Clinton
C. Mark Corp. — Hicksville, L. I.
Community Rent-Alls — No. Merrick, L. I.
Contractors Supply Corp. — Long Island City
Contractors Supply Corp. — Westbury, L. I.
Contractors Trading Co. — New York
H. W. Cook Farm Service — DeRuyter
Cowans Ezzo Service — Burke
A. R. Davis — Ithaca
E. R. De Coste & Sons — Mooers Forks
M. C. & C. M. Drake — Arcade
Dryden Implement Inc. — Dryden
Ed's Mower Shop — Cornwall on the Hudson
Fabius Hardware — Fabius
Fairville Garage — Newark
Farm & Home Store — Madison
Richard Farr — Long Lake
Finger Lakes Equipment Co. — Waterloo
The Fix It Shop — New Lebanon Center
Flushing Saw Shop — Flushing
Fort Neck Tool Rental Co. — Massapequa
Eugene Fortier — Tupper Lake
Stanley Freeman — West Leyden
Freeport Equipment Sales & Service — Freeport
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Gilling & Nedrow — Kings Ferry
Pete Giltz Implement Co. — Theresa
Glen City Garage — Watkins Glen
Glen Head U-Rent — Glen Head, L. I.
Goodrich Implement Co. — Johnson City
A. J. Grabs Sons — Hudson
Graves Logging Supply — E. Cobleskill
Greenville Farm Supply — Greenville
E. Gumienik — East Randolph
Hallsville Farm Supply — Ft. Plain
Edgar Handy Garage — Sharon Springs
R. S. Hardic & Son — Edmeston
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— Penn Yan
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Kellers Saw Shop — Elmira
Douglas Kelly & Son — Margaretville
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Keough Marine Sales — Saranac Lake
Kinneys Plowing & Trucking Co. — Camden
T. J. Klindt — Downsville
Kyles Farm Machinery — Martville
Lange Hardware — North Bellmore
Larry's Mid-Island — Glen Cove
Larry's Saw Shop — Kanona
Lester's Service — Essex
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Histands Garage — Mantua
Homecraft Rental Service — Succasunna
Howlett Hardware — Absecon
Charles Hurff — Monroeville
Oscar Jenkins Co. — Mullica Hill
K & H Auto Stores — Pitman
Kish Brothers — Highland Park
Manns Hardware — Hewitt
Master Grinding Co. — Denville
McManus Floor Machine — Hackensack
New Jersey Lawn & Power Mower — Ledgewood
Northern Valley Mower & Equip. Shop
— Old Tappan
Olden Supply — Trenton
Passaic Grinding Shop Inc. — Passaic
C. W. Plummer — Salem
Pops Tool & Machinery — Paterson
Wm. Potter & Son — Middletown
Reeves Lumber Co. — Port Elizabeth
H. G. Rice — Edgewater
Lester T. Roark Farm Supply — Elmer
Rusnak Brothers Inc. — Hammononton
The Sharp Shop — Midland Park
Sheldon Dix Saw Service — New Market
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Slusars Garage — Swedesboro
Sparta Tool Rental — Sparta
United Rent-Alls of Lakeland — Haskell
Steve Willand — Montville

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NEW IN IRRIGATION

by Amos Kirby, New Jersey Editor

Thinking of installing an irrigation system for next year? Before spending a dime read this article, then drive down to the Delaware Experiment Station at Georgetown and see the new underground system of irrigating corn.

The system consists of placing half-inch plastic pipe 16 inches underground, with tiny holes every 12 inches apart. The water is fed by gravity from a tank 15 feet high, and slowly applied to the soil in the root zone of the corn or other crop. The surface of the soil remains dry and sandy, but dig down a few inches and the soil is as wet as if it had had rain every week. (The system wouldn't work on a large field because water would have to be applied under pressure).

The corn I saw was planted in 30-inch rows, and the stalks spaced less than a foot apart. Every stalk was at least eight feet high, and carried an ear as large as one's arm. Estimated yield before harvest ranged from 100 to 140 bushels per acre.

Adjoining the sub-irrigated plot was unirrigated corn that will have difficulty in making 25 bushels per acre.

According to Dr. William Mitchell, one may double the efficiency of the water by overcoming evaporation losses. One inch of water applied by sub-irrigation equals two inches by overhead systems.

This is the second year for sub-irrigation at Georgetown, and similar tests are underway in other states in the Northeast. Costs start at \$200 an acre . . . but 100 bushels of corn at \$1.65 per bushel versus 25 bushels is a factor when one starts to estimate the investment.

WINTERIZING FRUIT TREES

Ever winterize your blueberry bushes and peach trees? County agricultural agent John Brockett, Atlantic County, offers that suggestion to cut down on damage from winter injury.

Soft wood on blueberry bushes can be easily killed with freezing weather. Peach trees on soils heavily fed last spring before May freeze can still contain considerable amounts of nitrogen that has not been used by the trees due to drought.

Treatment is simple. Add cover crops to the blueberry and peach orchards . . . winter oats are recommended. They compete for the available nitrogen, are killed off during the winter, add a lot of humus to the soil, and there is little or no new growth comes spring to complicate cultivation.

Seed application is two to three bushels per acre. Cover with shallow cultivation, and during the next eight weeks (October to November) the winter oats will be nibbling up the nitrogen, and the tender twigs will be hardened to stand low winter temperatures.

Added Note: Winterkill in peaches has been mentioned as one cause for the peach tree decline in the Burlington-Camden-Atlantic area, although nematodes are now believed to be a partner.

NEMATODE MONTH

October is the hunting season for nematodes, so say the folks at the New Jersey Agricultural College.

The month of October is the best time of the year to treat soils for this silent pest that hides in the soil, lives on valuable crops, and is more costly than the hired man.

The drought has been costly to most New Jersey growers this year . . . there is a possibility that the nematode has been a close second . . . yet the drought gets all the blame.

Nematodes are not inclined to be fussy about what they eat . . . so long as it is the roots of such plants as sweet potatoes, strawberries, peach trees, lettuce, cucumbers, carrots, and even tomatoes. County agents are urging growers to do something.

First step is to have the soil tested. Take a sample to the Extension office. The College will do the testing and make recommendations.

In October most crops are harvested, and there is time to plow prior to treatment of the soil. Plowed fields are preferred. There is less coarse matter to clog the teeth of the applicator, thus preventing a proper fumigating job. And the soil is in better condition for working in October, with about the right degree of moisture to provide good conditions for treating.

Applicators are available. They may be rented, or there are custom operators who specialize in nematode control.

CONDITION POTATOES

Looking for potato markets in the Deep South? Then take a suggestion from Joseph Lynch, manager of the New Jersey Potato Council.

Shipping potatoes long distances is like taking a long trip via automobile. He suggests that potatoes need conditioning to arrive in condition acceptable to the consumers. They should be mature, carefully graded, and shipped in ventilated trucks . . . potatoes like to be kept cool.

Should white potatoes be hydro-cooled before shipping? Central Jersey growers question hydro-cooling. They find that conditioning the potatoes by proper maturity, allowing them to remain in packing house or shed until cool, and then proper transportation eliminates the need for hydro-cooling.

Buyers of peaches, nectarines, sweet corn, and a few others will pay for the cost of hydrocooling . . . but no dice when it comes to the white potato.

American Agriculturist, October, 1966



Stan (left) and Paul Chittenden make hay fast when the sun shines . . . with self-propelled baler and drying wagons.

OPTIMISTIC ABOUT JERSEYS

by Jim Bodurtha

STANLEY CHITTENDEN, Lebanon, New York, is optimistic about Jersey dairy cattle. And he ought to be . . . he's been raising them at Fair Weather Farm (Columbia County) for 30 years, and has been three times elected to the presidency of the American Jersey Cattle Club. "The Club registered 14,000 more animals in the early months of 1966 than in the same period the year before," Mr. Chittenden reports.

Potent Producers

High protein and solids content of Jersey milk is not the only reason Mr. Chittenden is bullish about the breed. "Cow power" is a concept about which he's optimistic, too. "In efficiency of production . . . milk output in relation to feed intake . . . I don't think Jerseys can be beaten," he says. "If you consider body weight, they're tops."

His own 300 milking Jerseys are producing at an annual rate of 8,600 pounds of milk testing 5.4 percent butterfat.

Total 1965 milk production at Fair Weather Farm was 2.1 million pounds, about 330,000 pounds per man. The milk goes to Connecticut Milk Producers Association for Sealtest Dairies in Hartford, Connecticut.

No Horns

Mr. Chittenden also is enthusiastic about the polled characteristic of some Jersey strains. "A good half of our herd is now naturally polled," he reports, "and eighty percent of our new calves are polled." Rating this genetic condition almost on a par with his view of Jerseys as "the most efficient producers of quality milk," Mr. Chittenden not surprisingly relates: "We're trying to concentrate this polled characteristic by selecting bulls pure for it."

He and son Paul breed the herd artificially. "We buy semen more than we buy bulls," Stan explains. "Along with efficiency, plus polledness, we're looking for cows with a tendency for upstandingness and always for good udders."

Feeding at Fair Weather Farm is based on corn for two reasons: (1) the cows make most milk on corn, and (2) since availability

of atrazine herbicide, "you can just plant corn and forget it."

Mr. Chittenden's affirmation of corn as the finest of feeds for Jersey dairy cattle has its roots in experience with government corn meal available at reduced prices only four years ago. "We fed it straight, and the cows milked like they never milked before," he recounts. "This sold us on the fact that we could use more corn in our rations."

The expanded use took the form of corn silage rather than grain. Today he puts 230 acres of corn into five upright silos and one 1400-ton bunk, and the silage provides about half of his 600-head herd's feed. The chief variety, Cornell M-3, is supplemented by others to broaden the maturity range. "Frost really doesn't bother us at all, however," Stan insists. "After a frost, we merely run a little water in with the corn."

Mr. Chittenden plants "fairly thick" with a four-row planter . . . "that's big enough for this rolling country" . . . so as to obtain 20,000 to 22,000 plants per acre in his 36-inch rows. The corn is fertilized by manure, liquid nitrogen, and 250 pounds per acre of 15-15-15 fertilizer at planting. Harvest is by self-unloading wagons and dump truck.

Plowing is done entirely in the spring, as is seeding of grass-legumes. Liming is done only in advance of seeding. There are seven wheel tractors and one crawler at Fair Weather Farm.

Seeding

"We can raise a lot of good alfalfa," Mr. Chittenden reports. Narragansett alfalfa and Climax timothy comprise his chief hay crop mix; in questionable soils Viking trefoil is added as insurance. He often substitutes brome-grass for the timothy. "We really like brome, but it does tend to crowd out alfalfa."

Seeding is often done with oats or sudangrass. The oats are not harvested for grain, but are rather pastured. Where a plot is definitely to be pastured, he'll also often seed Ladino clover.

The usual fertilization when

(Continued on page 18)

Wean them two weeks early?



You can save two weeks on each calf you raise with Agway's Four-Week Early Weaning Program and Veal-N-Gro Milk Replacer.

Veal-N-Gro is the replacer Agway recommends with this new program because it contains everything calves need to start fast and grow fast. It's a 24% protein replacer that's 100% milk product and animal fat . . . so concentrated it takes only about half as much Veal-N-Gro (compared with ordinary replacers) to wean each calf at four weeks.

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"HEART" of Roto-Flail Design

are six propeller-shaped, hinged flails that pulverize hard, crusty snow or ice with hammer blow action. Hinged feature of flails prevent damage if rocks or other unbreakable objects are struck.



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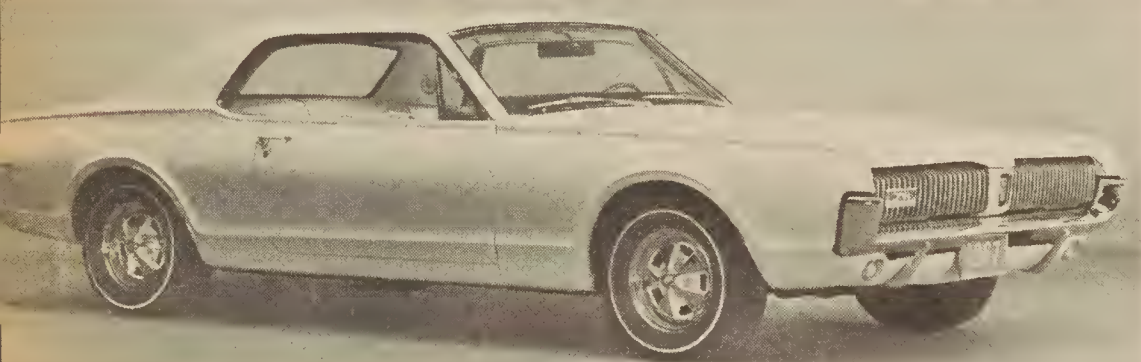
DEPT AA-10 New Holstein, Wisconsin

BLADES • RAKES • DOZERS • HALF-TRACKS

NEW CARS AND TRUCKS FOR '67



GMC is offering a completely restyled line of light duty trucks featuring a number of safety-related improvements that include self-adjusting brakes with independent front and rear hydraulic systems, padded dashes and sun visors, more thickly laminated windshield glass, and safety steering column.



MERCURY introduces the Cougar to the '67 line, with standard front bucket seats and fully padded instrument panel. There are 18 cars in Mercury's '67 line-up . . . the Brougham and Marquis models are brand new introductions this fall.



JEEP Gladiator truck buyers have a choice between 250-h.p. V-8 "Vigilante" engine and the 145-h.p. "Hi-Torque" six-cylinder. Both engines are available with automatic or standard transmissions . . . other options include power steering, power brakes, power-lock differential, extra-large cab window and air conditioning.

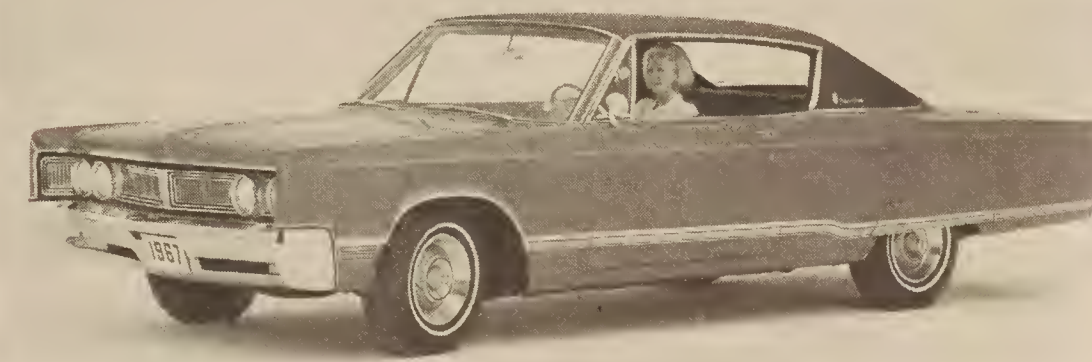


DODGE'S best selling car is the Coronet. This series for '67 includes the Coronet Deluxe, the 440, the 500, the SE (Special Edition), and the Coronet R/T (Road and Track). The grille, quarter end caps, and rear deck trim have been restyled for a fresh new look.



FORD introduced the Mustang in April of 1964, has produced 1,285,000 of them. That's the Mustang 2+2 (front), Hardtop (left) and Convertible. The 1967 Ford, with a major body styling change for the third consecutive year, offers the biggest and most luxurious cars in its history . . . with an even quieter ride than last year.

AUTOMOBILE dealers across the land have a whole new line-up of vehicles for work and pleasure. The 67's continue the long-run improvement of convenience, comfort, and safety. Speaking of safety, you'll find that many hazard-reducing features that were once optional are now standard equipment.



CHRYSLER is offering this Newport Custom in a new series for '67. It has a 124-inch wheelbase and is 18+ feet long. Standard engine is the 383 cu. in. V-8 with 2-barrel carburetor, offering high fuel economy and retaining performance. A 440 cu. in. engine is optional.



FORD'S F-Series light trucks . . . F-100, F-250 (pictured), and F-350 are available in a choice of seven body styles and five wheelbases with payloads ranging up to 10,000 pounds. They're more rugged than ever, but also provide a more car-like ride, as well as better handling, comfort and convenience.



PONTIAC introduces for the first time in the 1967 model year this Tempest Safari station wagon, featuring on the lower half of the body a walnut grain vinyl material trimmed with bright stainless moulding. Also new for 67 models: stereo tape player, disc front brakes, and cornering lights.



OLDSMOBILE has restyled its 88's and 98's (Delmont 88 pictured) along lines heavily influenced by the Toronado. New option is ultra-high voltage transistor ignition system which increases spark plug life fourfold . . . no engine ignition tuneup for at least 24,000 miles.

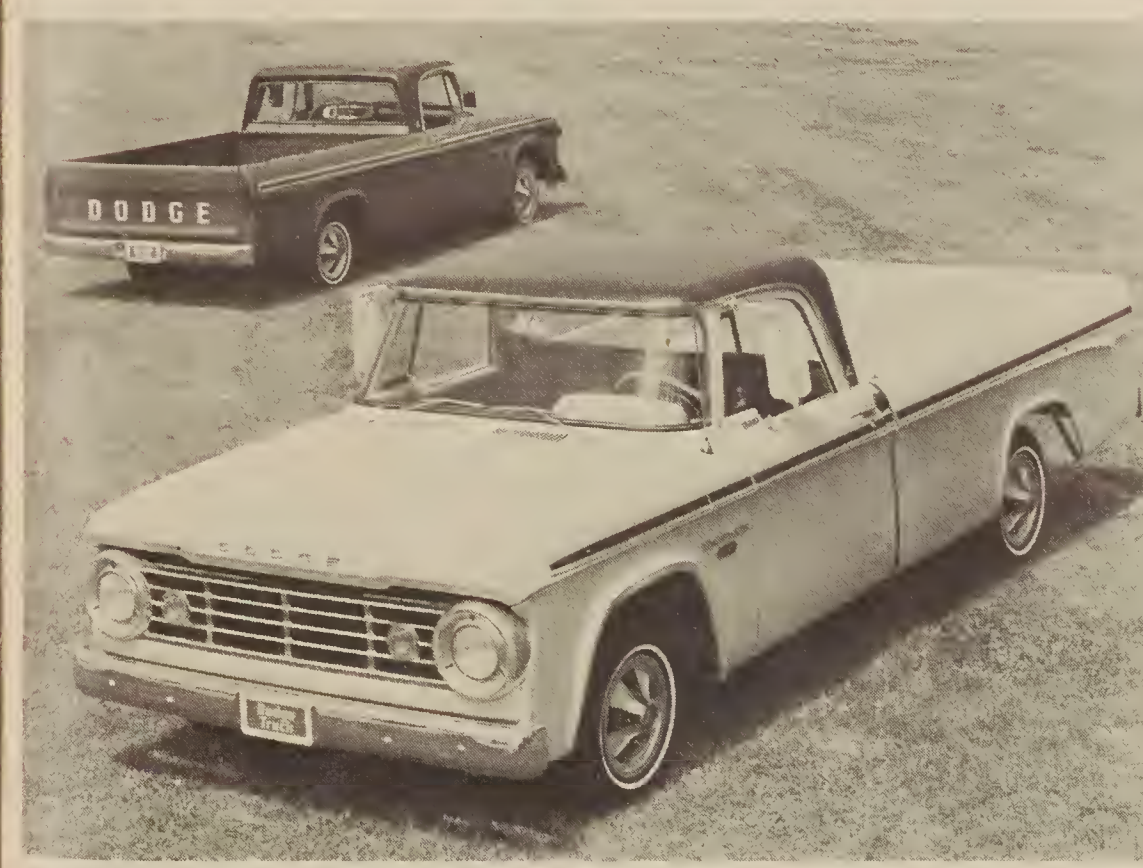
As an example of the safety-consciousness of all automobile manufacturers, General Motors has a long list of safety features that will be standard on 1967 cars. They include: dual master brake systems, brake system warning light, padded and glareproof inside rear-view mirror, folding seat back locks, free wheeling inside front door handles, four-way emergency flasher system, energy-absorbing instrument panel and steering wheel, lanechange indicator and shoulder harness anchorage provisions.

As in all recent years, the customer will have choices galore . . . Oldsmobile, for instance lists 33 entries in its '67 model lineup. And then there are all sorts of optional equipment and varying interior color styles.

It looks like another good year for the industry . . . and the customer.

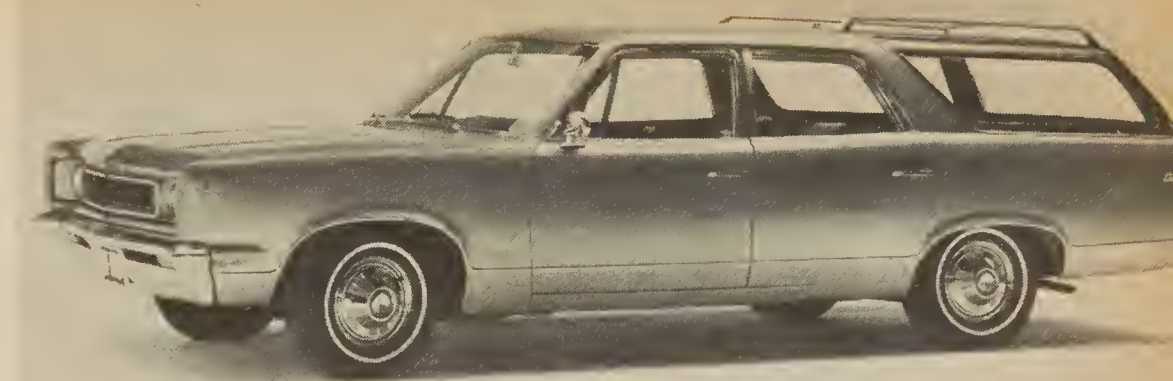


INTERNATIONAL HARVESTER offers the Scout 800 (pictured) in both rear-wheel and all-wheel drive versions, available with wide variety of tops. IH also has "A-line" trucks with gross weight ratings from 4,000 to 15,000 pounds, and offering a broad range of optional appearance items. Engines include type operated with LP gas fuel system.



DODGE pickup trucks reflect fact that it is no longer a strictly work vehicle. Optional equipment includes simulated black vinyl roof, bucket seats, center console, deep pile carpeting, sterotape pack, white sidewall tires, chrome full-wheel covers.

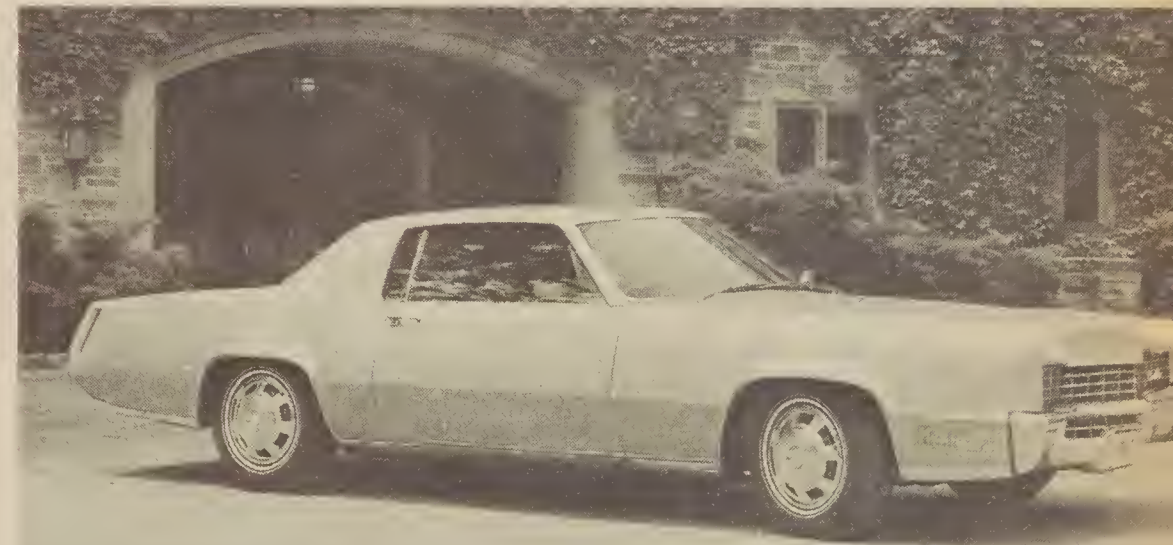
CHEVROLET has six lines of cars for '67, including the newly-introduced Camaro. Pictured is volume-leading Chevelle whose basic six cylinder engine is increased to 230 cubic inches. Two sixes and five V-8's are offered with horsepower range from 140 to 235. A dozen safety features have been added as standard equipment on all models.



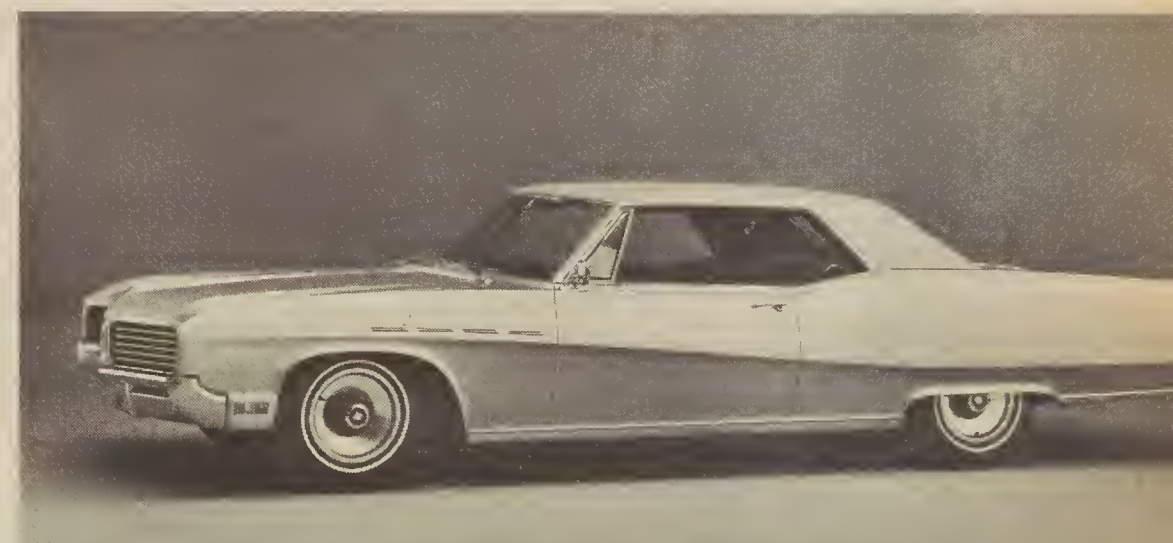
RAMBLER Rebel station wagon for '67 has 25 percent more rear cargo volume, larger tailgate opening, and longer floor length. Four new optional high-performance V-8 engines, ranging from 200 to 280 h.p., are available in the American Motors lineup.



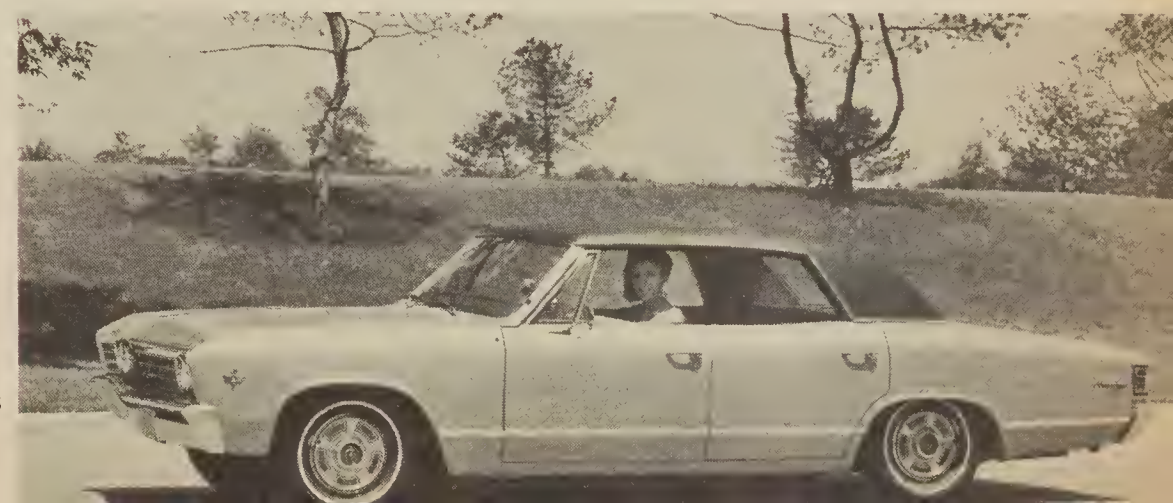
PLYMOUTH enters the 1967 model year with newly-sculptured bodies and dramatic new roof styles for its Fury cars. All cars in the '67 Plymouth line have many standard safety features, as well as optional items like safety head rests to reduce the danger of whiplash injury.



CADILLAC has a completely new luxury model for '67 . . . the front-wheel drive Fleetwood Eldorado. There are twelve models in the Cadillac line; engine in all of them is the 340 h.p. V-8, now improved with completely new valve train and Quadrajet carburetor.



BUICK'S Electra 225 is one of the total of 37 different models in nine series. A new series, the GS 400 is new for the '67 model year. Buick's main efforts in exterior design were directed this year towards making each series more readily identifiable.



BHL



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Optimistic

(Continued from page 15)

seeding down is 300 to 400 pounds per acre of 0-15-30 or 6-24-12 fertilizer per acre, depending on the relation of legumes to grass. Stan then topdresses his forage fields before first cutting in the spring, and also between cuttings. While the forage is harvested primarily as hay, some is made into silage for one of the silos.

As hay, it is put up in 18-inch bales by a self-propelled baler, which kicks them into a trailing wagon. Thereupon, much of the baled hay is dried artificially in a six-bay down-draft drier.

In the Fair Weather milking parlor, the Chittenden registered Jerseys receive grain containing 16 to 24 percent protein, according to production and to forage quality. The milk-to-grain ratio is about 3 to 1.

The milking parlor, even though still serving stanchioned cows, was one of the first in the Northeast. "As far as I'm concerned," Stan stresses, "it's the only way to milk cows."

Stan has a smaller barn in which the cows are milked in stanchions. "We've never had a cow who did as well there as in the other barn and parlor," he declares. "They increase yield when returning to the parlor system, too."

Efficiency, cleanliness, and man comfort are further attributes of parlor milking, he feels. He plans to build free stalls soon, too, and

a 120-cow feeding barn for the system is already erected. Says Stan: "I don't know why we didn't think of free stalls years ago."

Stanley Chittenden's progress in dairy breeding and farming has been notable . . . due to hard work, ambition, and good management. David Hawes, manager of the Farm Credit Service Associations at Hudson, New York, adds further reasons. "Stanley Chittenden is a highly respected farmer," Dave says. "The familiness of his operation has been a tremendous asset. So has Stan's ability to keep people working for him."

Members of the Chittenden family involved in the operation now are recently-married Paul, and 14-year-old Craig. Mrs. Chittenden is a great help in the farm records department. Little Karl, 4, likes the farm, too. Daughter Barbara, now Mrs. Larry Benson, developed a herd of 22 Jerseys at Fair Weather, and now farms nearby with her husband.

It's apparent that Stan gets along well with people, and even he would acknowledge that this may be a reason that employees at Fair Weather Farm stay. Ted Cummings has been with him 18 years and Ernest Vail 11; none of his men has been with him less than two years.

Stan gets along well with other dairymen, too . . . regardless of the breed of cattle they prefer. His final comment: "I'm optimistic about the future of the dairy business as a whole."

LIQUID MANURE

PLANS and working drawings are available for liquid manure-handling structures by sending the required money to: Extension Plan Service, Department of Agricultural Engineering, Riley-Robb Hall, Ithaca, New York 14850.

Here are details:

Plan 820 — Liquid Manure Tank (25¢). There are five different tank widths from 12 feet to 24 feet but the depth is constant at 10 feet. The top thickness as well as reinforcement size and spacing are tabulated. With variable length, a number of different sizes are available from this one plan. Capacity is based on 18 gallons per cow per day, and the volume of concrete for each foot of length is also tabulated.

Plan 5981 — Rectangular Concrete Manure Tank (75¢). A 20-foot-wide reinforced concrete tank 6, 8, or 10 feet deep. Two reinforced concrete roof designs are shown. One is to carry a tractor and 1500-gallon spreader and the other for 40 pounds per square foot uniformly distributed. Capacities range between 18,000 gallons and 150,000 gallons.

Plan 5984 — Circular Concrete Manure Tank (75¢). Wedge-shaped beams and slabs precast or cast in place form the roof system. Designs for diameters of 32 and 48 feet are shown. Reinforcing provides a safety grille in the filling slot, and lift-out sections in the slab segment allow pumps

and agitators to be put into the tank. Depths of 6, 8 and 10 feet allow capacities from 36,000 to 135,000 gallons.

Plans are available for the price indicated to residents of any state.

PTO BOOK

A new problem-solving book on PTO applications is available from the Farm and Industrial Equipment Institute (FIEI). It offers across-the-board guidance to achieve the most efficient combinations of tractors and implements.

The PTO Conversion Guide, just released, is an authentic reference on the application of 540 rpm and 1000 PTO units to a wide range of tractor-powered equipment. It outlines exactly which make or model of PTO driven implement can be used with or be converted to use with any given make or model of tractor.

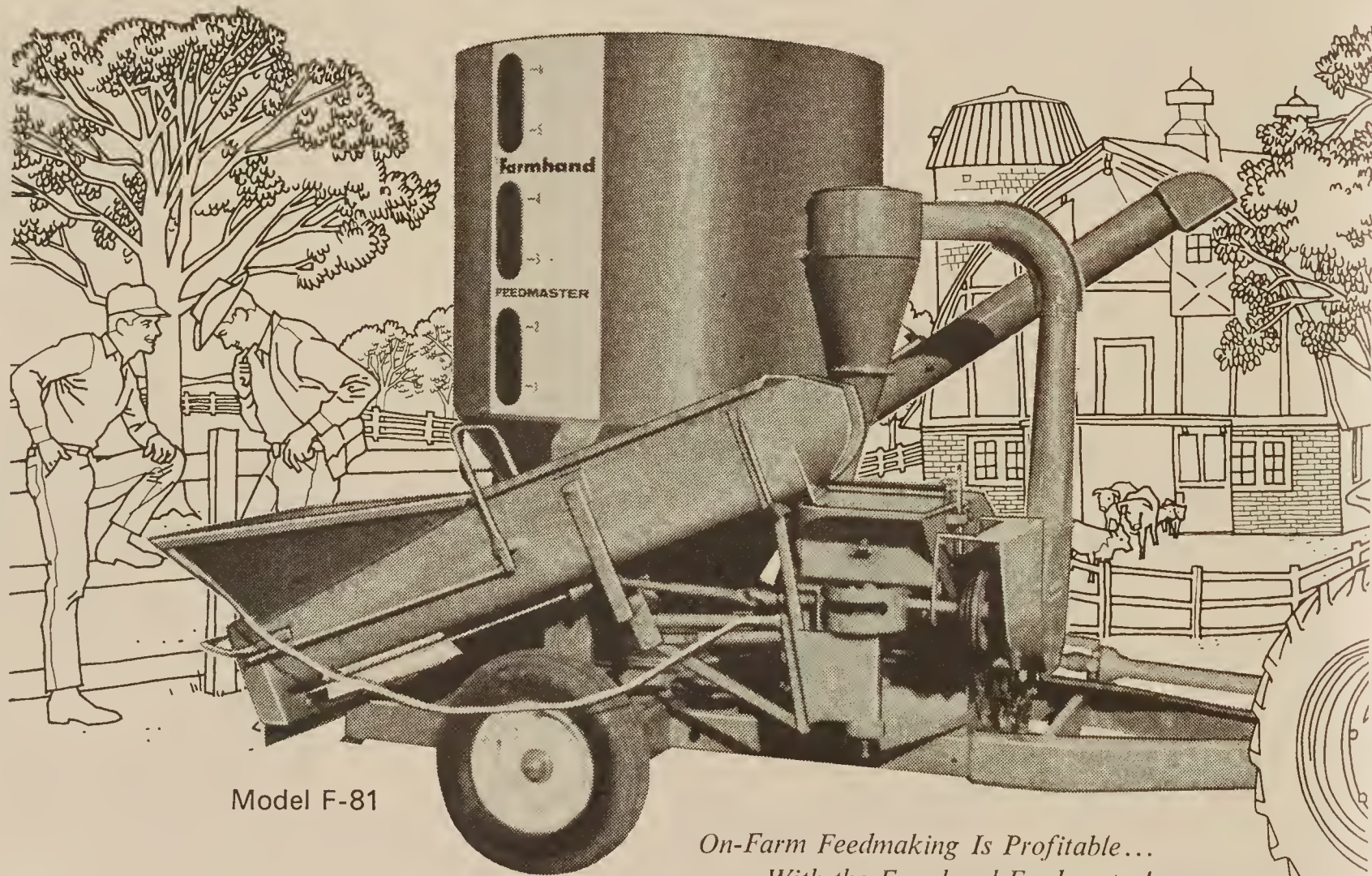
Research was done by an FIEI task group composed of R.D. Barret (International Harvester), chairman, R.W. Giertz (John Deere) and R.W. Johansen (Allis-Chalmers) under the direction of the FIEI Power Take-Off Subcommittee, of which M.E. McClellan (John Deere) is chairman.

Orders for the FIEI PTO Conversion Guide should be mailed to Engineering Department, Farm and Industrial Equipment Institute, 410 N. Michigan Avenue, Chicago, Illinois, 60611. The cost: single copy 75¢; 100 copies 50¢ each.

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Drive Type	10 V-Belt	Gear Box
Feed Roll	Optional	Standard
Drop Feeder	Auger, 6' lg. (Opt.)	Auger, 8' lg. (Opt.)
Mixing Auger	12" dia.	14" dia. 24" at base
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EMPIRE CHANGE PROPOSED

FARMERS and dealers will be offered the opportunity to acquire direct ownership and control of Empire Livestock Marketing Cooperative's seven auction markets in New York State during October and November, Empire's President, R. Stephen Hawley of Batavia, New York, has announced.

The proposal evolved from a study initiated by Empire's Board of Directors for the purpose of updating its organization and financing to the needs of the next decade. The recommendations for user ownership and greater user control resulted in the intensive stock subscription effort which will be underway beginning in early October.

Common Stock

Ownership and control by users will come about when farmers and dealers subscribe for 8,000 shares of \$50 Common Stock which has ownership and user voting rights. Every user will receive a written invitation to join with others in acquiring the 7 auction properties, the business, and the Empire name.

The present Empire organization, under another name, will continue its management of the seven auctions under a contract arrangement similar to that being successfully used by several cooperatives in New York State, Empire's President stated.

Advantages

The advantages of user ownership as outlined by Mr. Hawley are:

1. More user control over policy and management decisions.
2. Opportunity to gain more voice; the more shares and use of the market, the more votes are earned.
3. Share in the profits through dividends from Common Stock.
4. Ownership is the best assurance for competitive bidding and markets for the top dollar.
5. Election at each location of a Market Council and the members of the cooperative's Board of Directors.

Future Needs

The sponsoring farm organizations who now own the voting stock in Empire (Agway, Dairy-men's League, Eastern Artificial Insemination Cooperative, New York Farm Bureau, and the Grange) endorse and actively support the transfer to user ownership, according to Mr. Hawley. A personal invitation to subscribe will be undertaken by solicitors in each market area during October and November.

The proposed change is the result of long study, is endorsed by the sponsoring farm organizations, and is a long overdue transfer of ownership and control to the users which will result in a more effective market outlet for New York's dairy and livestock industry, Mr. Hawley stated.

The seven auction markets are

located at Bath, Bullville, Caledonia, Dryden, Gouverneur, Oneonta, and Watertown. Together, they handle 25 percent of the livestock auction sales in the State. *Editor's Comment*—In the 19-year life of Empire, it has marketed \$272 million worth of livestock, and during the process introduced some much-needed innovations such as selling livestock by weight rather than by the head. It has "set the pace" for livestock marketing in the State and has thereby exerted a strong and constructive influence on the entire industry.

However, the years have brought the need to update Empire for greater flexibility. Proposed changes offer new opportunities to raise capital for strengthening existing markets and opening new markets, and also provides certain tax advantages.

Among farmers, much mention is made of the advantages of user control of marketing facilities; many comments are also made about the profits being made by the marketing segment of agribusiness. The proposed reorganization of Empire Livestock Marketing Cooperative offers farmers the opportunity to gain more user control of livestock marketing facilities, and extends the opportunity to explore the possibilities... and the problems... of being one of the "middlemen." And the proposal provides farmers the continued management services of a group of people long on livestock marketing knowledge.

The reorganization proposal was developed by, and has met with the approval of, some top agricultural leaders who are also active in other farm cooperatives and organizations. It deserves careful consideration by farmers and, in my opinion, their support. — *Gordon Conklin*

WORKMEN'S COMP

New York State farmers with an annual cash payroll exceeding \$1200 are required to carry Workmen's Compensation Insurance after October 1, 1966.

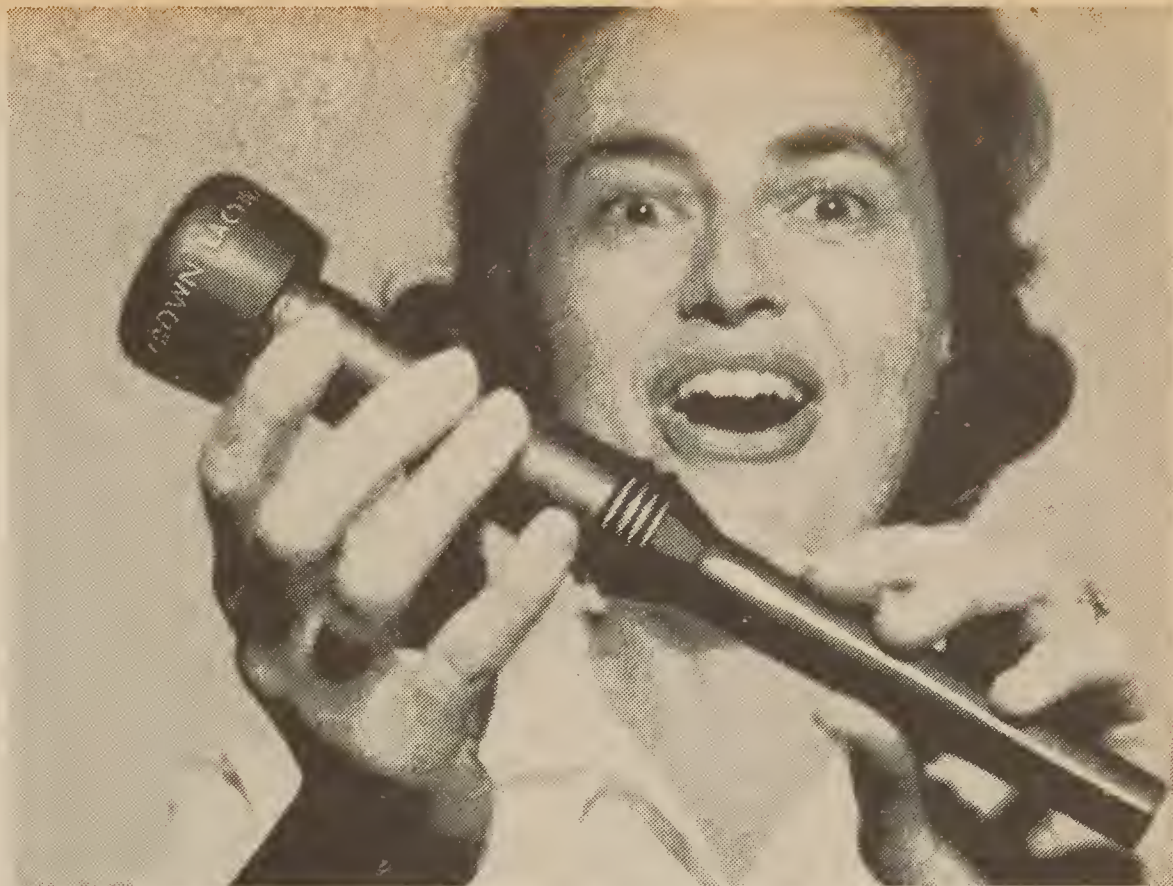
FLASH!

At press time, we learn that mandatory coverage will not begin until April 1, 1967...except for farmers hiring woodlot workers.

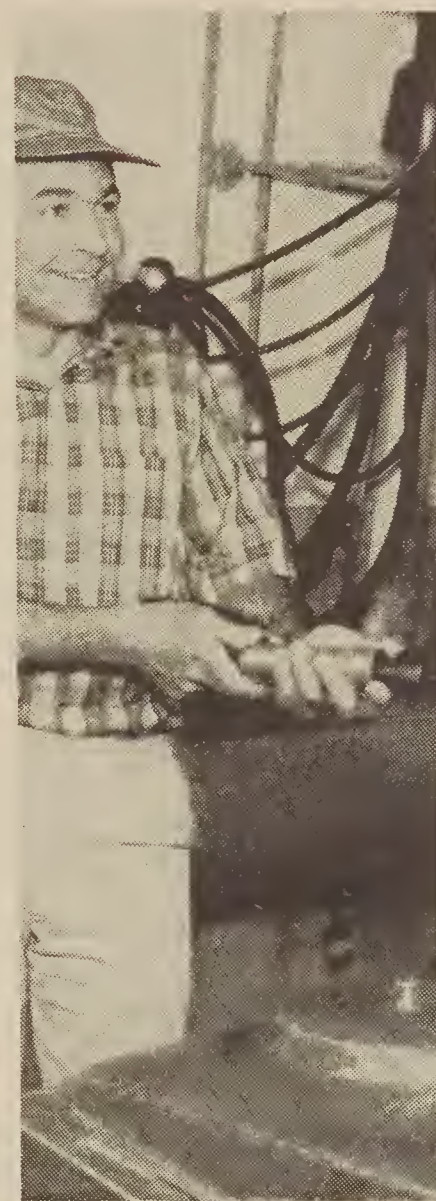
— Requirement to carry Workmen's Compensation in any future year will be determined on the basis of cash payroll in the immediately-preceding calendar year.

For the purpose of calculating Workmen's Compensation premiums, payroll includes a reasonable estimate of value of privileges fur-

(Continued on page 25)

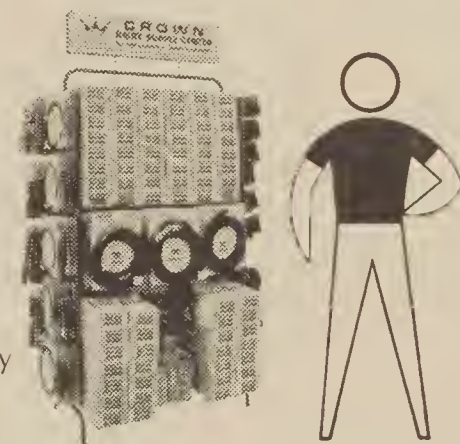


These inflations really are softer, aren't they, Jim?



Sure are, Marge! And faster, too. They're LACTIVATORS

Trust a woman's sensitive touch to appreciate the exceptional softness of Crown's new Lactivators! But Jim values inflation softness for a special reason. He knows why these extra-soft, gentle, fast-action Lactivators pay off in higher milk production and better herd health. Here's the reason! ■ Lactivators are not only far more gentle but they open faster and close more completely than any other major brand. This means that you are working with the cow to take complete advantage of the inner pressure she's built up through oxytocin. Lactivators work fast to get the milking finished before the inner pressure diminishes—full milk flow. ■ Dairy men from coast to coast report that these new Crown Lactivators have superior resistance to butter fat and require no special care. Far more protection against Mastitis—gentle. And, only Lactivators have life-lines for proper tension control and a built-in alarm system that tells when inflations should be replaced. ■ Don't settle for ordinary inflations—insist on Lactivators by Crown. It pays!



Look for this Crown "Dairy Supply Center" at better dealers.

FREE LACTIVATION FOLDER


CROWN DAIRY SUPPLY CO.
P.O. Box 208
Homer, N. Y. 13077

CROWN DAIRY SUPPLY CO.
Dept. 3, P. O. Box 526, Waukesha, Wisconsin 53186

YOUR NAME _____ ADDRESS _____
CITY _____ COUNTY _____ STATE _____
NAME OF SUPPLIER _____
CITY _____ STATE _____

News and Views from NEW YORK AND PENNSYLVANIA



Present leaders of the Eastern Artificial Insemination Cooperative, Inc. Seated, from left: George Rich, Franklin, N.Y.; Albert Fox, Olivebridge, N.Y.; President Harold Harter, Jordanville, N.Y.; Carl Russell, Kennebunk, Maine; Erton Sipher, Gouverneur, N.Y.

Standing, from left: Dewey Smith, Amherst, N.H.; Donald Fay, Jericho, Vermont; Norman Allen, Schaghticoke, N.Y.; Richard Call, Batavia, N.Y.; Robert Drake, Woodhull, N.Y.; Jeremiah Wadsworth, Farmington, Conn. Absent was Gerald Evans, Georgetown, N.Y.

Automatic Egg Packer — A mechanical egg packer developed by the Agricultural Experiment Station at The Pennsylvania State University is now available to the industry. It is made to pack eggs in filler flats or cartons directly from an egg collector, washer, grader, or other conveying equipment. A mechanism positions the

eggs so they will be packed small end down, and the machine will pack 3,000 eggs, or eight cases, per hour.

Fred Sexauer — After 47 years as a director of the Dairymen's League, Fred H. Sexauer of Auburn, New York, has decided to retire. Mr. Sexauer was president

of the League from 1928 until 1945 and had previously served on the executive committee, starting in 1921. After he retired from the presidency of the League he was executive assistant to the president for a long period, and has been active in national and regional dairy and farm organizations.

Popular Farm — Most popular farm in the State this summer was the model farm established by the New York Farmers, Inc., and staffed by three Cornell students. City children ranging in age from 10 to 16 have been milking a Holstein cow, brushing calves and sheep, watching baby chicks hatch in an incubator, and planting a garden for the first time at the Herald Tribune Fresh Air Camp at Fishkill, New York. The animals were borrowed from neighboring farmers, most of whom serve on the farm committee of the New York Farmers, and each child has two weeks to sample new experiences and learning.

Goat Milk — Recently the Pennsylvania Agriculture Department had a request from Italy for powdered goat milk . . . for making cheese. It probably isn't too well known that the nation's second largest goat milk pasteurizing and bottling plant is at Boyertown, Pennsylvania (the largest is in California). As a matter of fact, Pennsylvania has three such plants, plus a number of individuals who

sell raw goat milk. The other plants are at Drums and Latrobe.

It's not a big business, but demand is unusually good. Consequently, the firm was able to supply information, prices and other details to the interested cheese maker in Italy. Now the officials are awaiting word on negotiations that might add powdered goat milk to the long list of foodstuffs Pennsylvania sends abroad.

Princess — Janice Doane, daughter of Mr. and Mrs. Paul Doane, Windsor, New York, was selected as 1966 Lassie at the New York Shorthorn picnic, and represented the State association at the State Exposition, the Eastern National, Timonium, Maryland; and the International Exposition at Chicago.

Youthpower Convention — John O'Connell, Locke, New York, New York delegate to the National Youthpower Convention, writes us that one of the main objectives of the Convention was to discover ways of combating the present tendency among teenagers to skip meals . . . thus lowering their efficiency at the beginning of the day. Another objective was to acquaint the delegates with the many career opportunities available in the food industry and in agriculturally-related businesses. John will be writing and speaking to various organizations about these problems in an effort to help solve them.

Compulsory Inspection — Effective October 1, 1966, all vehicles except those registered as farm trucks must be inspected annually. Details are not complete, but it is understood that older cars and agricultural trucks that have been previously inspected will follow the schedule they have been using. Newer vehicles will be inspected in April, May, June or July . . . but the schedule has not yet been announced.

Marvin Retires — After 20 years of active service as manager of New York and New England Apple Institute, L. W. "Monte" Marvin has retired.



Spot-light your heat— where you need it!

Electric infra-red lamps and heaters supply the heat you need . . . right on the spot where and when you need it . . . without waste or attention.

Use them to keep young stock warm, for brooding poultry, or to keep you warm and prevent freezing in the milkhouse, parlor or egg room.

Ask our local Farm Service Representative to help you solve your on-the-spot heating problems. Ask him, too, about the reduced

fire insurance rates available with no-fire heat.

Call him at our nearest office. He's always ready to advise and help you farm better . . . electrically.



OUR MAN WILL HELP YOU PLAN



Big A — The New York State Farm-City Council has launched a "Community Big-A Award Program." The award will be presented to communities for outstanding accomplishment, promotion, recognition, or spirit in the broad realm of farm-city cooperation. The Council intends to continue the awards program in future years. Design illustrated will be symbol used in connection with the program.

American Agriculturist, October, 1966

1967
FORD

PICKUPS

CONVENTIONAL F-100/F-250/F-350

Boy & Boot



Three new Ford Pickups . . . work like trucks, ride like cars!

Ford's all-new 1967 pickups are tougher and smoother! Tougher from the frame up . . . a pleasure to drive. Compare them with cars, not trucks, as to comfort, smoothness and quiet ride! The all-new styling is functional . . . with roomier cabs and better visibility. New *double-wall* hood sections provide outstanding stability and rigidity. *Double-wall* side panels of Styleside pickup bodies protect outer walls from possible damage because of shifting cargo. F-100/250 Series bring you a new idea in pickups . . . the Ranger. Ranger is Ford's all-new top-of-the-line Styleside Pickup. F-100

Rangers are available with 115- and 131-inch wheelbases and 6½- and 8-ft. cargo boxes respectively. The F-250 has a 131-inch wheelbase and an 8-ft. box. Both the F-100 and F-250 have Ford's road-smoothing Twin-I-Beam front suspension. And now for '67 so does the F-350 Series! The F-350 with new 131-inch wheelbase is available with 9-ft. cargo box. F-350 is available in Flareside pickup, stake and platform bodies and as chassis-cab, cowl-in-front windshield models. New 159-inch wheelbase F-350's are offered for commercial bodies up to 12-ft. long or 14-ft. chassis-mounted cab-over campers.

Twin-I-Beam Front Suspension is one big reason why Ford pickups come so tough, ride so smoothly. Twin-I-Beam design has two front axles, one for each wheel. Wheels roll over bumps independently to smooth out the ride on any road. But don't let the smooth ride fool you: Twin-I-Beam front suspension is all truck. Each axle is a forged steel I-beam, like the axles on big trucks. And each axle is held in alignment by a forged steel radius rod. Quite a design . . . a design you won't find on any other pickup! First introduced in 1965 model year on the F-100's and 250's, a new heavy-duty version is now standard on the F-350 Series.



TOP LEFT: THE F-100 STYLESIDE PICKUP. ABOVE: THE F-100 RANGER



F-250 FLARESIDE PICKUP



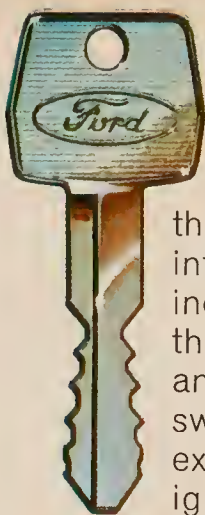
F-350 CHASSIS-CAB WITH VAN BODY

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More attractive, more spacious cab interiors



Everything about Ford's new interiors says comfort, luxury and spaciousness—loud and clear! You have a choice of three cab interiors . . . standard cab, Custom Cab or the exclusive cab of the Ranger. All interiors are bigger . . . nearly four inches more shoulder room. Seats are three inches wider . . . deep-cushioned and more comfortable, too. A new swept-away instrument panel provides extra space. You can even insert the ignition key either side up—it's reversible. Ford pickups look more carlike, have more carlike features, ride more like cars and still they are the toughest Ford pickups . . . ever!

RANGER—Ford's all-new, top-of-line F-100/250 Styleside pickup! full-width, deep-cushioned seat upholstered in a highly styled durable vinyl with a soft cloth appearance. Vinyl door trim panels and nylon carpeting are handsomely trimmed with bright-metal moldings and arm rests are keyed to main body colors. The steering ring, instrument cluster, headlining, instrument padding moldings are bright-finished for added richness. Outside, bright-finished front bumper grille and headlight assembly, hubcap wheel lip and rocker panel moldings add extra sparkle . . . clearly identify Ranger as Ford's finest full-size pickup.



RANGER INTERIOR (F-100/250 STYLESIDE PICKUP)

CUSTOM CAB is optional with all F-100/250/350 Series Fords. The all-new Custom Cab offers plenty of luxury and comfort! Woven-plastic seat trim in red, blue, green or beige is color-keyed to exterior paint; deep foam-cushioned, full-width seat can seat three big people comfortably; arm rests and rubber floor mats are also color-keyed to main body color; cigar-cigarette lighter; bright-brass horn ring, headlining retainer molding, instrument cluster and padded dash further add to the cab's good-looking interior. Bright-metal grille and headlight assembly, windshield reveal molding and "Custom Cab" plaques give the Custom Cab's exterior a distinctive appearance.

STANDARD CAB features include a color-keyed padded dash; attractive, functional instrument cluster; foot-operated parking brake; molded fiber-board glove box with push-button latch; bright aluminum door scuff plates; slide-action air vents for improved ventilation, easy operation; one-piece, easy-to-keep-clean hardboard headlining; and a full-width red, blue, green or beige vinyl-trimmed seat color-keyed to cab paint. Never before have Ford standard cabs been so attractive!

STANDARD SAFETY FEATURES* on all F-100/250/350 Series Fords include seat belts for driver and passenger, seat belt anchorage for center passenger, padded dash, padded sun visors, emergency lamp flasher, backup lights, dual safety hydraulic brake system with warning light, windshield washers, dual electrical 2-speed windshield wipers with non-glare wiper arms, interior and left outside rearview mirrors (pickups), left and right outside mirrors for chassis-cab, stake and platform models, non-glare instrument panel and cluster and safety door latches and hinges.

**Slight variation on chassis-cowl and windshield models.*



CUSTOM CAB INTERIOR (F-100/250/350)



STANDARD CAB INTERIOR (F-100/250/350)

Convenience Options



Power Brakes for quicker, surer stopping—need less pedal pressure, make driving easier and safer. Available on all F-100/250/350 Series Fords.



Power Steering takes the work out of parking, turning, driving. You'll appreciate power steering on the job at day's end. Available on F-100 and F-250 Series.



Cruise-O-Matic transmission with a "second hold" feature provides complete *manual* control or 3-speed *automatic* shifting. Excellent for slippery road traction.



Bucket Seats (F-100/250/350 Series Fords) add sports flair, provide individual comfort. Foam-padded, vinyl-covered seats are color-keyed to exterior paint.



SelectAire Conditioner ends summer heat, noise, dirt, pollen and odors. This dealer-installed item cools cab and maintains a comfortable temperature.



Transistorized Radio gives you instant reception. Keeps you posted on traffic conditions, weather and news... helps ease long hours behind the wheel.

A wide choice of Fords to meet your needs...

STYLESIDE PICKUPS feature smooth styling with body side panels extended to hug the contour of rear cab corners. F-100 pickups come with 6½- and 8-ft. bodies on 115- and 131-inch wheelbases respectively. F-250 pickups have 8-ft. boxes with 131-inch wheelbases. The Styleside pickup features *double-wall* side panels and tailgate with an all-steel floor for durability. A single, center latch opens and clicks-shut the tailgate quickly and easily . . . and only *one* hand does it!

FLARESIDE PICKUPS have the same body lengths and wheelbases as Styleside pickups. The F-100 and F-250 Flareside pickups have 6½- to 8 ft. long bodies. The F-350 Flareside has a 9-½ ft. body with the new 135-inch wheelbase. Flareside features include running boards between cab and rear fender for easier over-the-side loading; seasoned hardwood floorboards with steel skid strips to help slide cargo into place; a rubber-covered, forged steel chain support the tailgate, and steel side panels with rolled edges to provide extra strength and rigidity.

CHASSIS-CAB MODELS are designed to accommodate custom-built bodies. F-100 chassis-cabs can take bodies from 6½ to 8 ft. long; F-250's—from 6½ to 8 ft. long and F-350—from 9 to 12 ft. long. A 12-ft. cab-over chassis-mounted camper body can be installed on an F-350 Camper Special with a 135-inch wheelbase; 14-ft. chassis-mounted camper body can be mounted on an F-350 Camper Special with a 159-inch wheelbase and dual rear wheels. Your Ford Dealer will be glad to help you select the right body to meet your needs.

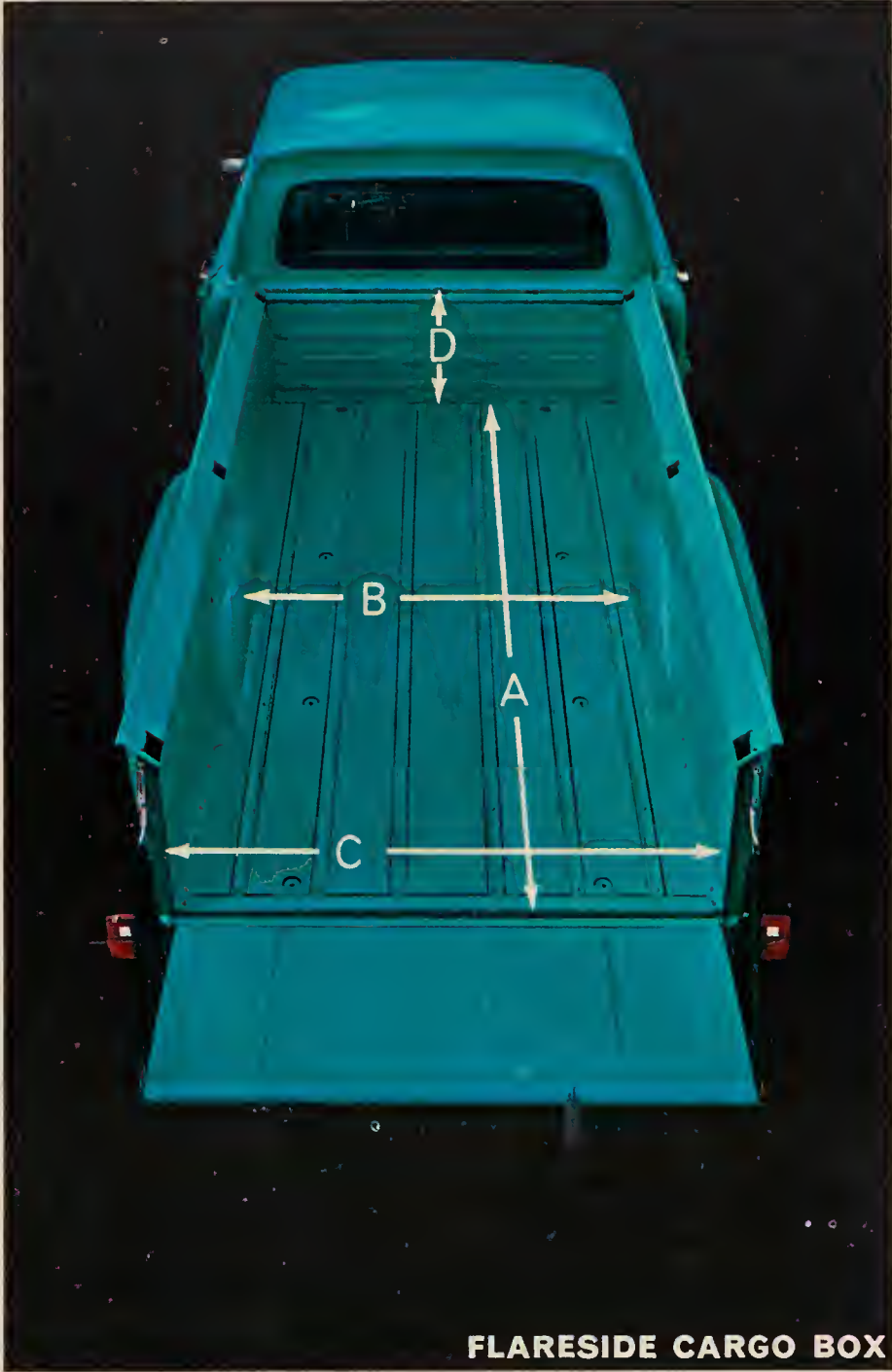
STAKE AND PLATFORM MODELS are designed to haul bulky and odd-shaped loads. Stake and platform models come in the following wheelbases and body lengths: F-100 with 115" wheelbase—6½-ft. body; F-250 with 131" wheelbase—7½-ft. body; F-350 with 135" wheelbase—9-ft. body. Dual rear wheels are available with the F-350 for greater payload capacity. Seasoned hardwood floorboards are interlocked with steel skid strips. Floor corners are reinforced with steel angle brackets.

CHASSIS-COWL AND CHASSIS-WINDSHIELD MODELS are easily adapted to single-unit bodies of the walk-in type. F-100 chassis-cowl and chassis-windshield models are available with 115-inch wheelbase; F-250 chassis come in 131-inch wheelbases; and F-350 chassis are available with both 135- and 159-inch wheelbases.

See your Ford Dealer for detailed information on special bodies and equipment to meet your requirements.



STYLESIDE CARGO BOX



FLARESIDE CARGO BOX

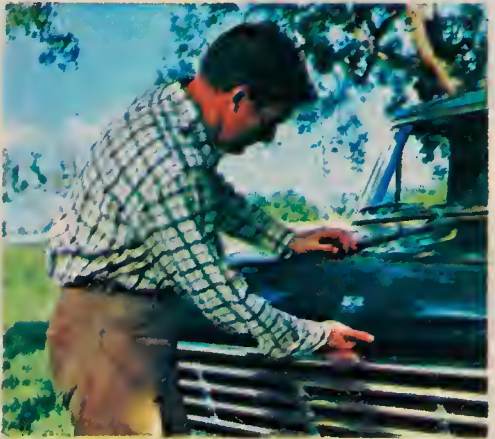


STAKE OR PLATFORM

Ford Truck Body Features



Double-Wall Hood sections provide increased hood rigidity. DOUBLE-WALL SIDE PANELS of Styleside pickups give extra strength and protect exterior sheetmetal against damage caused by shifting cargo.



One-Hand-Operated Hood Latch is standard to improve engine compartment accessibility. No groping with two hands . . . the new latch is easy to reach and open with just one hand!



One-Hand Tailgate Latch on Styleside pickups. Pull—tailgate opens to a horizontal position. Push—it snaps shut automatically. Center latch releases tailgate in one easy motion. Only one hand does it!



Flareside Running Board is a wide, ribbed steel step between the cab and rear fenders to permit easy loading from either side. Running board is standard equipment on F-100/250/350 Flareside pickups.

F-100/250/350 CARGO AREA DIMENSIONS (ABOVE)

MODELS	STYLESIDE		FLARESIDE					STAKE OR PLATFORM		
	F-100	F-250	F-100	F-250	F-350	F-100	F-250	F-350		
SERIES										
WHEELBASE (in.)	115 131	131	115 131	131	135	115	131	135	159	
Nominal Body Length (ft.)	6½ 8	8	6½ 8	8	9	6½	7½	9	12	
Inside Length (in.) (A)	78.19 98.19	98.19	77.9 96.0	96.0	108.1	80.0† 82.6††	90.0† 93.4††	106.0† 109.4††	144.0† 147.4††	
Width Between Wheelhousings (in.) (B)	49.0 49.0	49.0	** 48.4	48.4	48.4	—	—	—	—	
Tailgate Opening (in.) (C)	65.0 65.0	65.0	49.0 54.0	54.0	54.0	67.0† 71.3††	73.7† 79.3††	82.1 87.3††	82.1 87.3††	
Floor to Top of Sides Height (in.) (D)	19.30 19.30	19.30	20.3 22.1	22.1	22.1	24.5	28.3	31.2	42.0	
Cargo Capacity (cu. ft.)	60.3* 76.4*	76.4*	45.0 65.4*	65.4*	74.0*	—	—	—	—	

*Allowance made for wheelhousings **No inside wheelhousings †Stake ††Platform

F-100/250/350 CHASSIS-CAB DIMENSIONS (RIGHT)

DIMENSIONS (in.)	F-100	F-250	F-350
Wheelbase (WB)	115 131	131	135 159
Front bumper to front axle (A)	30.7	30.7	30.7 30.7
Front bumper to back of cab (B)	105.7	105.7	105.7 105.7
Back of cab to rear axle (C)	40	56	60 84
Rear axle to end of frame (D)	36.8	40.6	38.5 47.5
Frame to cab roof height (E)	47.5	47.5	47.5 47.5
Frame to ground height (F)	24.0	23.7	24.6 24.9
Overall length (G)	182.5	202.3	202.3 204.2 237.2



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4 Seasons of fun with Ford Camper Specials

Every year more and more families are discovering that a Ford Camper Special is the reliable way to enjoy America's great outdoors. Ford F-100/250/350 Camper Specials are specially designed and engineered to carry your camper and equipment with optimum reliability, durability and economy.

You can take off on weekend or vacation hunting, fishing or camping trips in your Camper Special by Ford . . . America's leader in recreation-type vehicles. The new '67 Camper Special Package is now available on a new 135-

inch wheelbase F-350 chassis-cab model that can carry a 12-ft. cab-over camper body. The 159-inch wheelbase model, as illustrated, can haul up to a 14-ft. camper body.

Ford Camper Specials are engineered to provide the special heavy-duty components needed to haul a camper body. They remove the guesswork and bother of ordering components individually. Your Ford Dealer will be glad to assist you in selecting the Ford Camper Special model and a camper body to meet your recreational needs!

F-100 CAMPER SPECIAL

F-100 Camper Special pickups are engineered to carry 8-foot camper coaches with optimum reliability and economy. The new, longer 131-inch wheelbase locates the center of gravity further forward of the rear axle to transfer more of the camper's weight to the Twin-I-beam front suspension. Result—greater stability, better ride and handling, improved smoothness, more comfort and greater durability. See chart below for details on F-100 Camper Special Package.)

F-250 CAMPER SPECIAL

F-250 Styleside and Flareside pickups and Chassis-Cab Camper Special models are designed to transport 10½-ft. cab-over camper coaches. F-250 Fords can carry over a ton more camper body and payload than F-100 models. F-100/250 Camper Specials are available with a 300-cu. in. Big Six or 352-cu. in. V-8 engine, 4-speed manual or 3-speed Cruise-O-Matic transmission, limited-slip rear axle, power steering, power brakes, Custom Cab, Ranger, air conditioner and many other options.

F-350 CAMPER SPECIAL

The F-350 135-inch wheelbase Camper Special can carry a 12-ft. cab-over chassis-mounted camper body. When equipped with single rear wheels, the maximum Gross Vehicle Weight limit is 8,000 pounds.

The 159-inch wheelbase F-350 Chassis-Cab Camper Special can carry a 14-ft. chassis-mounted camper (see main illustration). When equipped with dual rear wheels, the maximum Gross Vehicle Weight limit is 10,000 pounds.



F-350 Chassis-Cab Camper Special with 14-ft. Chassis-mounted Camper



F-250 Camper Special with 10-ft. Cab-over Camper



F-100 Camper Special with 8-ft. Camper

F-100/250/350 CAMPER SPECIAL PACKAGE (Pickups & Chassis-Cabs)

Camper Special Package Includes:

- 70 ampere-hour battery
- Oil pressure gauge
- Ammeter
- Deluxe fresh air heater
- Dual electric horns
- Dual chrome 6" x 10" Western-type mirrors
- Extra cooling radiator
- Extended tailpipe
- Camper wiring harness*
- Rear shock absorbers for F-350
- "Camper Special" emblem

*Includes 12-volt 5-wire (identified) sealed cable without connectors for camper body interior and exterior lighting.

Minimum Optional Equipment Required:

The following chart shows the minimum equipment required for use with the Camper Special Package. The equipment shown does not necessarily represent the maximum equipment obtainable and in many cases additional optional equipment is available for maximum Camper loads and applications.

	F-100 (131" wb.)	F-250 (131" wb.)	F-350 (SR) 135" OR 159" wb.	F-350 (DR) 135" OR 159" wb.
Engine	300 Six or 352 V-8	300 Six or 352 V-8	352 V-8	352 V-8
Transmission	4-Spd. or Cruise-O-Matic	4-Spd. or Cruise-O-Matic	4-Spd. (std.) or Cruise-O-Matic	
Alternator	55 Ampere	55 Ampere	55 Ampere	55 Ampere
Fuel Tank	25 gal. w/ or w/o standard tank (Includes stone shield)			
Springs (lb.) Front Rear Aux.	1175 w/Six; 1250 w/V-8 Standard —	1175 w/Six; 1250 w/V-8 2450 —	Standard 2400 —	Standard 3000 550
†Tires—Front Rear & Spare	8.15 x 15 8PR PT 8.15 x 15 8PR PT or 7.00 x 15 6PR 7.00 x 15 6PR	8.00 x 16.5 6PR* 8.00 x 16.5 10PR* or 7.50 x 16 6PR† 7.50 x 16 8PR†	8.75 x 16.5 10PR 8.75 x 16.5 10PR or 7.50 x 16 6PR 7.50 x 16 10PR	8.00 x 16.5 6PR 8.00 x 16.5 10PR or 7.50 x 16 6PR 7.50 x 16 6PR
Max. Camper Length	8 ft.	10½ ft.	w/135" 11 ft. w/159" 12 ft.	w/135" 12 ft. w/159" 14 ft.

*For maximum GVW 8.75 x 16.5 10PR or 9.50 x 16.5 8 PR front, rear and spare †Includes HD brakes on F-250 PT=Passenger-type; all others Truck-type
†For maximum GVW 7.50 x 16 10PR front, rear and spare or rear and spare (SR)=Single rear wheels (DR)=Dual rear wheels

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Total Performance Ford Engines

Two High Displacement Sixes and a power-packed V-8 are available with 1967 F-100/250/350 Series Fords to provide you with high performance and long-term durability and dependability. The 150-horsepower, 240-cu. in. Six is standard with all three series; the 300-cu. in. Big Six rated at 170 horsepower is optional. Both Sixes feature a 7-main-bearing crankshaft for smoothness and stability and individual intake and exhaust manifold ports for improved engine breathing and fuel economy.

The 240- and 300-cu. in. Sixes are true High Displacement engines—engines with sufficient power and torque to enable you to maintain highway speeds while operating in the economy rpm ranges without excessive engine speeds or strain. Result: you benefit with more miles per gallon, longer engine life, less engine downtime.

Ford six-cylinder engine features include:

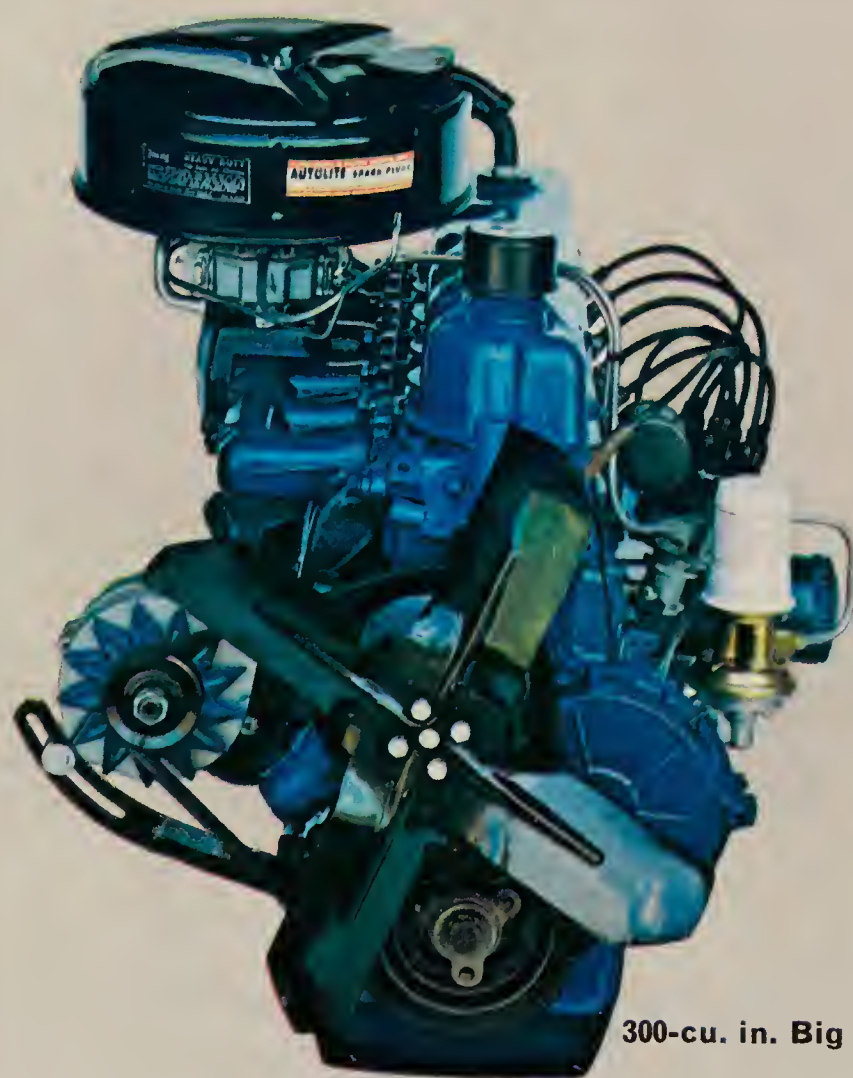
- Integrally cast crankshaft counterweights for smoothness and stability
- Individual pedestal-mounted ball-pivot-type rocker arms for uniform valve action at all engine speeds
- Hydraulic valve lifters for a quieter running engine and less maintenance

- Rotor-type oil pump for more effective lubrication at idling speeds than is possible with a gear type oil pump
- Full-circle water jackets to better dissipate combustion heat
- Aluminum-alloy pistons with steel struts for controlled expansion, precise fit and long life

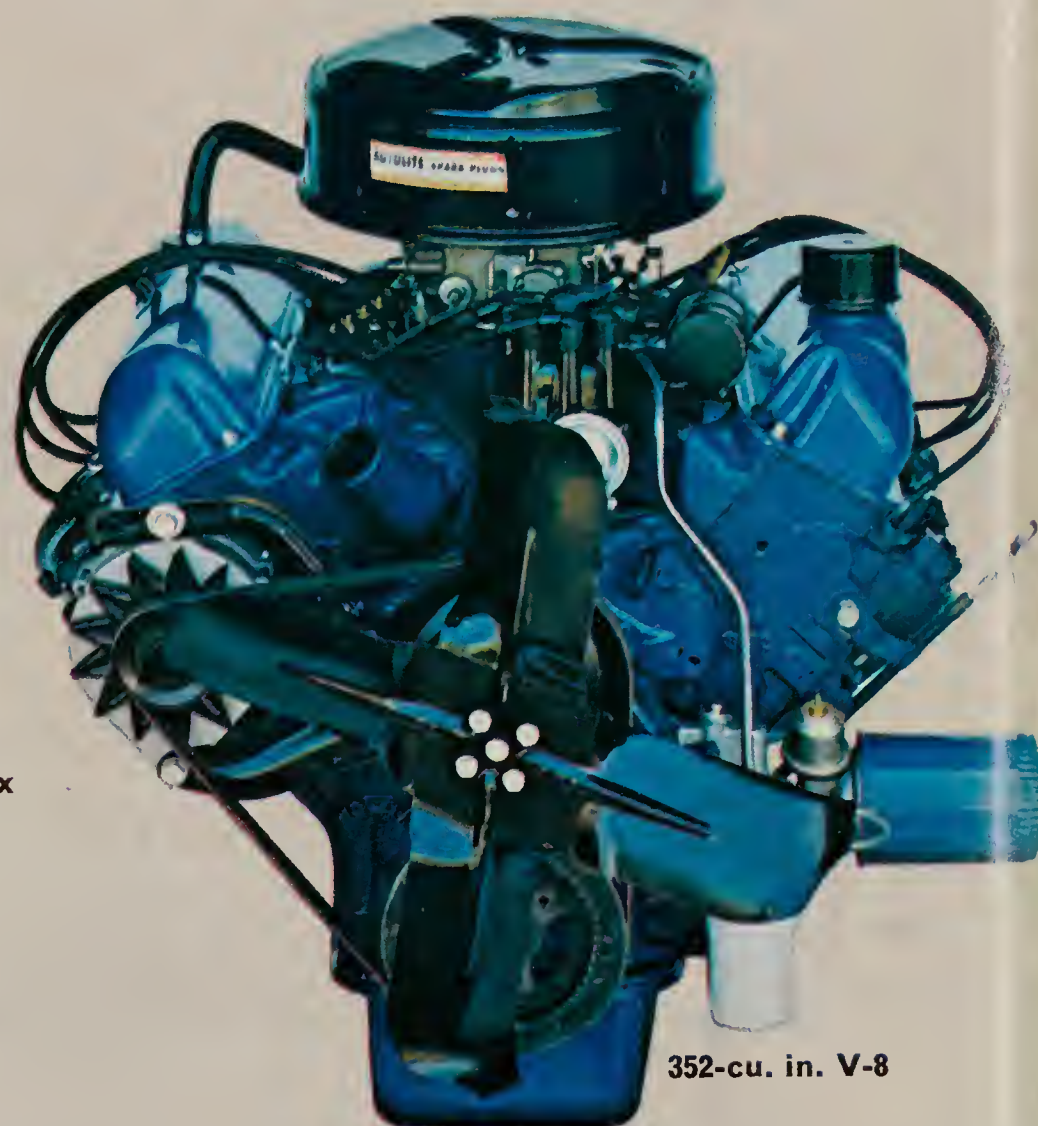
The 352-cu. in. V-8

The big 352-cu. in. V-8 gives you top performance . . . and good fuel economy, too! Rated at 208 horsepower, the optional V-8 is exceptionally responsive in any operating situation.

Outstanding engine features that provide this V-8 with superior performance include the following:



300-cu. in. Big Six



352-cu. in. V-8

BIG TRUCK POWER—SIX OR V-8

ENGINE SPECIFICATIONS	240 SIX	300 SIX	352 V-8
MAX. GROSS HP @ RPM	150 @ 4000	170 @ 3600	208 @ 4400
MAX. NET HP @ RPM	129 @ 4000	150 @ 3600	172 @ 4000
MAX. GROSS TORQUE (LBS-FT @ RPM)	234 @ 2200	283 @ 14-2400	315 @ 2400
MAX. NET TORQUE (LBS-FT @ RPM)	218 @ 2000	272 @ 14-2100	295 @ 2000
BORE AND STROKE (IN.)	4.0 x 3.18	4.0 x 3.98	4.0 x 3.50
COMPRESSION RATIO (TO 1)	9.2	7.9	8.9

6000-MILE lubrication maintenance schedule . . . Under normal operating conditions, F-100/250/350 Series Fords require oil change, oil filter change, oil-bath air cleaner service and minor chassis lubrication only every 6,000 miles.

Consult your Ford Dealer for other scheduled services.

- Precision-cast crankshaft with induction-hardened journals for extreme toughness
- High quality oil rings with chrome-plated rails for greater wear resistance
- Deep-skirt aluminum-alloy pistons for greater durability
- Hydraulic valve lifters for quieter operation and less maintenance
- Rotor-type oil pump for positive oil delivery at idling speeds
- Full-circle water jackets for more even expansion, less distortion and wear
- Heat control exhaust butterfly valve for rapid fuel-air mixture warm-up
- Large free-turn type intake and exhaust valves for self-cleaning and long life service
- Precision-machined camshaft for long cam life, smooth valve operation

STANDARD COLORS: Rangoon Red, Pebble Beige, Raven Black, Springtime Yellow, Holly Green, Lunar Green, Frost Turquoise, Harbor Blue, Wimbledon White, Chrome Yellow, Pure White. *Regular Two-Tone Paint Option* available with F-100/250/350 Series includes Wimbledon White applied to entire cab roof including drip rails and entire back panel above belt line molding and extending around cab corners to door openings.

Deluxe Two-Tone Paint Option available with F-100 and 250 Styleside Pickups includes Wimbledon White applied to the sheetmetal below the side molding and lower tailgate section. All other sheetmetal will be painted the basic color selected. This package includes bright body side molding, lower tailgate molding and taillight bezels and is also offered in combination with the regular two-tone paint options.

POPULAR OPTIONS: F-100/250/350

- Custom Cab ■ Bucket Seats ■ Camper Special Package ■ 3-Speed Cruise-O-Matic Transmission ■ 4-Speed Manual Transmission (F-100 & 250) ■ Integral-type Power Steering (F-100 & 250) ■ 25-Gal. Under-cab Fuel Tank and Stone Shield (w/ or w/o standard tank) ■ HD Clutch (w/standard engine) ■ HD Black Vinyl Seat Trim ■ Deluxe Fresh Air Heater & Defroster ■ Radio & Antenna ■ Dual Electric Horns ■ Shoulder Safety Harness (cabs only) ■ Two-Tone Paint ■ Deluxe Two-Tone Paint for F-100 & 250 Styleside Pickups ■ Orscheln Parking Brake Lever (250 & 350) ■ Air Conditioner (dealer installed) ■ Limited-Slip Differential . . . and many more.

F-100/250 CHASSIS SPECIFICATIONS

F-100 MAX. GVW: 5,000 LB.
F-250 MAX. GVW: 7,500 LB.

	STANDARD EQUIPMENT		OPTIONAL EQUIPMENT	
	F-100	F-250	F-100	F-250
Alternator:	38 amp., 570 watt.	38 amp., 570 watt.	45 amp., 55 amp., 65 amp.	45 amp., 55 amp., 65 amp.
Axle, Front: Capacity (lb.)	2600	3000	—	—
Axle, Rear: Capacity (lb.)—Ratios (to 1)	3300—3.70	5200—4.10	3300—3.25, 3.50, 4.11	5200—3.73, 4.56
Ratios for Limited-Slip differential (to 1)	—	—	3.31, 3.54, 3.73, 4.09	3.73, 4.10, 4.56
Battery: (12 volt)	54 plates—45 amp-hr.	54 plates—45 amp-hr.	66 plates—55 & 70 amp-hr.	66 plates—55 & 70 amp-hr.
Brakes, Service: Dual hydraulic master cylinder system	Self-adjusting	Self-adjusting	—	HD self-adjusting
Size (in.) front	11 x 2	12½ x 2	—	12 x 2½
rear	11 x 1½	12½ x 2	—	12 x 2½
Brake Equipment:	—	—	6¼" dia. vacuum booster	6¼" dia. vacuum booster
Brakes, Parking: Type (foot-operated*)	Cable actuation of rear brakes	Cable actuation of rear brakes	—	—
Clutch: Dia. (in.)—Area (sq. in.)	HD 11—123.7"	HD 11—123.7"	—	—
Engine:	240-cu. in. Six	240-cu. in. Six	300-cu. in. Six	300-cu. in. Six
			352-cu. in. V-8	352-cu. in. V-8
Frame: Section Modulus	115" wb.—2.98; 131" wb.—3.06	3.89	—	—
Shock Absorbers: Front and rear	Double-acting	Double-acting	—	—
Springs, Front: Coil capacity @ pad (lb. each)	1055 (240, 300 Sixes)	1055 (240, 300 Sixes)	1175 (240, 300 Sixes)	1175 (240, 300 Sixes)
	(1175 w/352 V-8)	(1175 w/352 V-8)	1250 (352 V-8)	1250 (352 V-8)
Springs, Rear: (Progressive leaf-type)	—	—	—	—
Capacity @ pad (lb. each)	950	1450	1250, 1650†	1950, 2450
Auxiliary	—	—	380 (N.A. w/1650 main)	450 (N.A. w/std. main)
Radiator:	—	—	Extra cooling	Extra cooling
Steering: Type	Recirculating ball	Recirculating ball	Power	Power
Transmission: Type	3-speed fully synchronized	3-speed fully synchronized	3-speed plus Overdrive	4-speed
			4-speed & Cruise-O-Matic	Cruise-O-Matic
Wheels: No.—type—rim size (in.)	5—5-hole disc—5½ K	5—8-hole disc—6.0	16 x 5K, 15 x 5.50K HD	16 x 5.50F, 16.5 x 6.0 & 6.75
Tires: Tubeless, No.—size	5—8.15 x 15 4PR PT	4—8.00 x 16.5 6PR	Tubeless and tube-type tires in sizes to match requirements	Tubeless and tube-type tires in sizes to match requirements

Note: Use adequate tires for loads and type of service. Consult your Ford Dealer!

*Orscheln lever optional w/HD brakes on F-250

†Single-stage type

F-250 CHASSIS SPECIFICATIONS (135- and 159-inch wheelbases)

MAX. GVW: 8,000 LB. w/SINGLE REAR TIRES;
10,000 LB. w/DUAL REAR TIRES

	STANDARD EQUIPMENT	OPTIONAL EQUIPMENT
Alternator:	38 amp.—570 watt	45, 55 or 65 amp.
Axle, Front: (Twin-I-Beam) Capacity (lb.)	3800	—
Axle, Rear: Capacity (lb.)—Ratios (to 1)	7400—4.56	4.10, 4.88
Ratios for Limited-Slip differential	—	4.10, 4.56, 4.88
Battery: (12 volt)	54 plates—45 amp-hr.	66 plates—55 amp-hr
		66 plates—70 amp-hr
Brakes, Service: Dual hydraulic master cylinder system	Self-adjusting	9½" dia. vacuum brake booster
Size (in.) front—rear	12 x 3	—
Brakes, Parking: Type (foot-operated)	Cable actuation of rear brakes	Orscheln lever
Clutch: Diameter (in.)—Area (sq. in.)	HD 11"—123.7	—
Engine:	240 Six	300 Six; 352 V-8
Frame: Section Modulus	135" wb.—5.58; 159" wb.—7.84	—
Shock Absorbers: Double-acting	Front	Rear, HD Front
Springs, Front: Coil capacity @ pad (lb. ea.)	1365 w/Six, 1455 w/V-8	—
Springs, Rear: Progressive capacity @ pad. (lb. each)	1700	2400, 3000
Auxiliary (w/3000-lb. main only)	—	550
Steering: Type	Recirculating ball-type	—
Transmission: Type	4-speed NP 435 (direct)	3-speed Cruise-O-Matic
Wheels:	Single rear	Single or dual rear
Tires: Tubeless*, No.—Size	2—8.00 x 16.5 6PR front & 8PR rear	Tubeless and tube-type tires in sizes to match requirements

Note: Use adequate tires for loads and type of service. Consult your Ford Dealer!

*Tube-type also available

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24,000-Mile (or 24-Month) U.S. Warranty—Ford Motor Company warrants to owners as follows: That for 24,000 miles or 24 months, whichever comes first, free replacement, including related labor, will be made by Ford Dealers of any part with a defect in workmanship or material. Tires are not covered by the warranty; appropriate adjustments will be made by tire com-

panies. Owners will remain responsible for normal maintenance services; routine replacement of parts such as filters, spark plugs, ignition points, wiper blades, brake or clutch linings, and for normal deterioration of soft trim and appearance items. The warranty referred to herein is applicable to products normally operated in the U.S.A. and Canada.

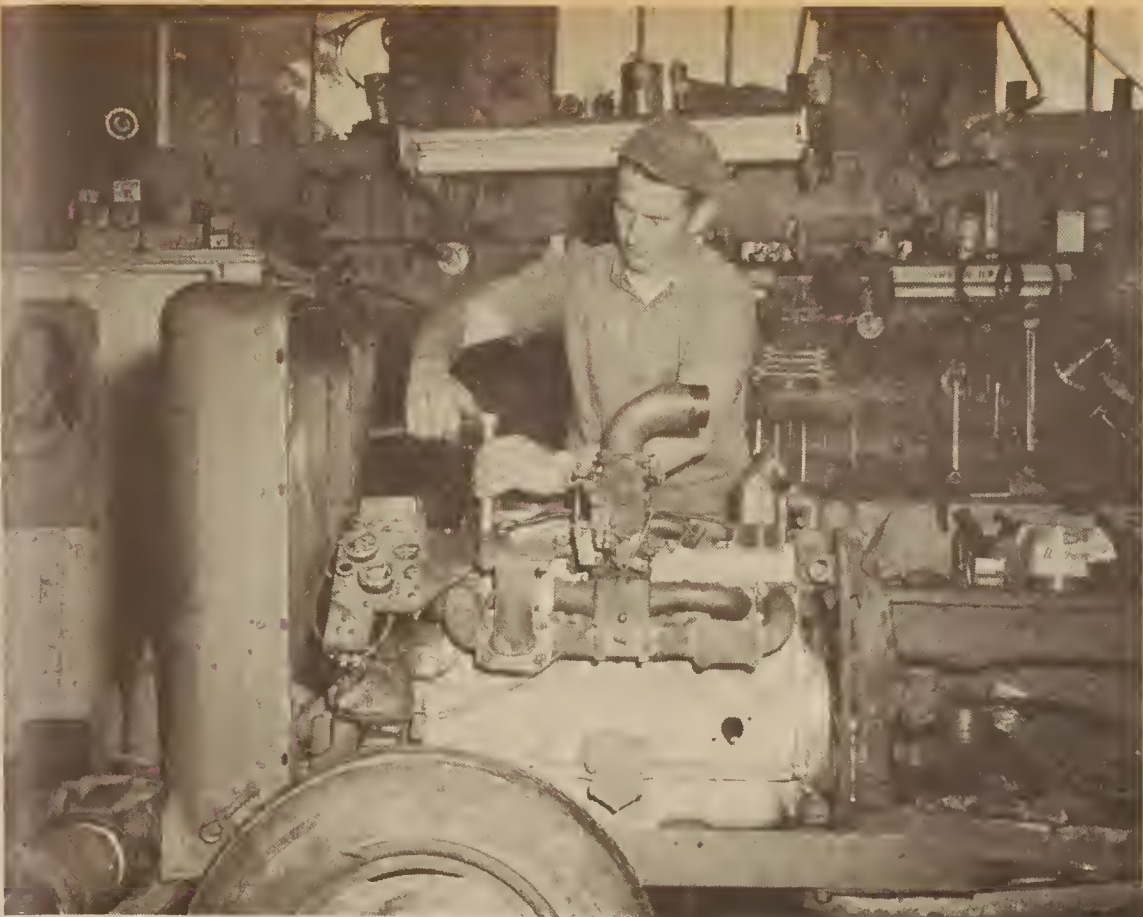
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Norman Green repairs irrigation pump in farm shop.

They grow fruit in the

VALLEY OF THE HILLS

by Gordon Conklin

CORRIE HAME are words meaning a "home in the valley of the hills" in the lingo of the Scots in days gone by... an appropriate name for the 500 acres operated by the Green family (Paul and sons Norman and Glenn) near Binghamton, New York. Perhaps the most unusual thing about their farm operation is the sizable fruit enterprise in an area that is mostly dairy. They do have a 20-cow herd, in the process of being expanded to 40, but fruit receives major emphasis.

There are 120 acres of tree fruit involved (all in apples except 3 acres of pears), 85 acres owned and 35 leased. Of this 120 acres, 15 are young non-bearing orchards... all semi-dwarf apples on Malling VII stock.

Strawberries

In addition, the Greens plant 3 acres of strawberries each year... and normally carry over each strawberry bed for two years' production... so they have six acres of producing berries each year. In '65, they sold 20,000 quarts of berries wholesale, and another 8,000 quarts on a pick-your-own basis. Varieties include Sparkle, Vesper, Midway, and Surecrop.

So far, birds have not been a problem in terms of swiping strawberries... but Norman Green admits that they went out of the cherry business because of the marauding fine-feathered friends. As for preventing potential losses from other unwelcome visitors to the strawberry patch, the tarnished plant bug "gets his" from a DDT spray when blossoms first show... and Captan sprays (number depending on weather) cope with disease. Fifteen hundred feet of irrigation pipe is available to move water from seven ponds located around the farm; strawberry fields get their share.

Tree fruits are also irrigated where needed... which was most

of the acreage in '65! It paid off handsomely with a crop of 15,000 bushels that year, having the quality required by such supermarket

chains as Grand Union, P and C, and the Giant Food Markets.

Major varieties include Northern Spies, McIntosh, Red Delicious, and Cortland. Most of the crop is stored and packed at the 12,000 bushel storage at Corrie Hame Farms, but 1,000 bushels of best quality Macs and the same amount of Spies were taken north to Wayne County last year for CA (controlled atmosphere) storage. Occasionally, the Greens buy apples in this top fruit county to splice out their own supply.

Quality Pack

Whatever the source of apples... their own or purchased... the Greens insist on a quality pack that fully meets the requirements of chain store buyers. All apples are packed at the farm... most of them in polyethylene bags bearing the farm name and holding 3, 4, or 5 pounds (4 pound bags were most popular in '65.)

Quality fruit, as every grower knows, depends on a good job of keeping bugs and diseases at bay. Basic applespray schedule includes Guthion and Captan, with a shot of oil early to clobber the mites... the critters that, as with most fruit growers, remain the biggest insect problem here. Tedion serves as a miticide if mite numbers flare up later in the season.

Other chemicals include thinners... NAA on Cortland, Wealthy, and Golden Delicious, NAD on Macs. If this doesn't do the job, Sevin is used later to thin 'em out some more. Northern Spies are thinned every year and have been "trained" in this fashion to bear every year instead of keeping the bad habit of biennial bearing. Norman comments, by the way, that the Spy market has fallen off the last few years, so that many a bushel of their formerly popular variety now go to processors.

Herbicides

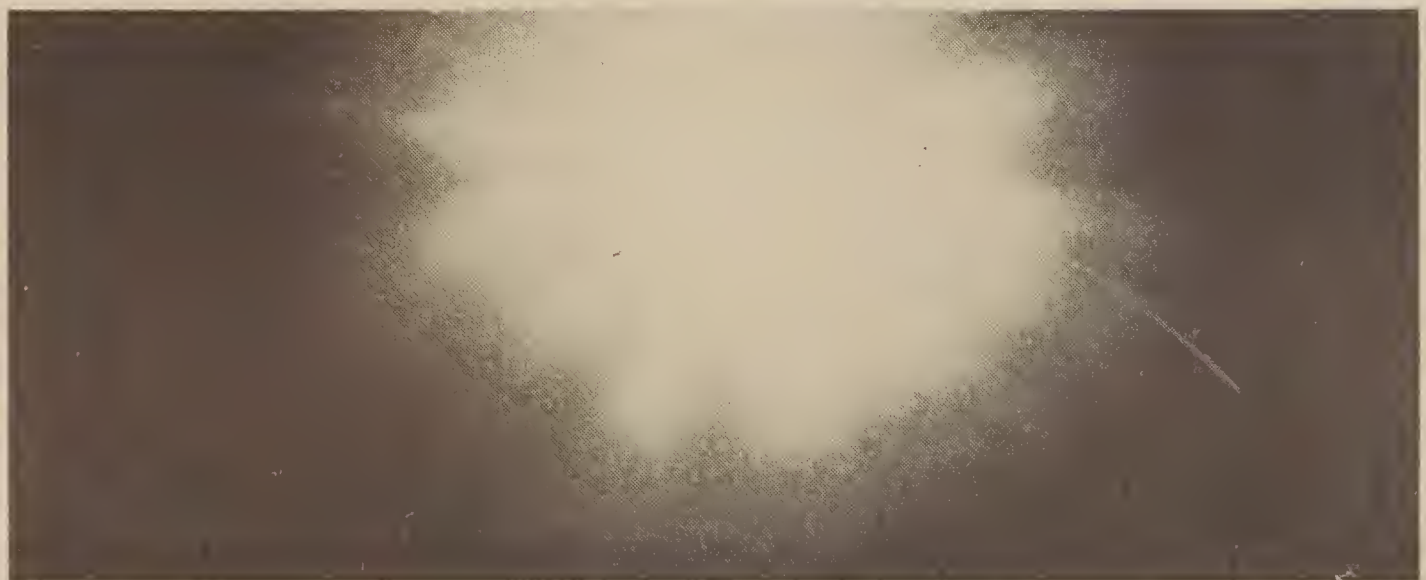
The pesticide arsenal also includes herbicides... Amitrol-T in bearing orchards to knock down grass and weeds around trees, Amitrol-T and Simazine around non-bearing trees. Orchards are mowed at least twice a year.

Fertilization follows soil test indications of needs. Nitrate of potash is used every year; three years ago a 12-12-12 plus boron was applied to all apple orchards.

The Greens have an excellent farm shop and do practically all their own equipment repair and maintenance. It's a busy and productive family... but, like all farmers, they take time now and then to marvel at the beauty and the bounty of their "valley of the hills."



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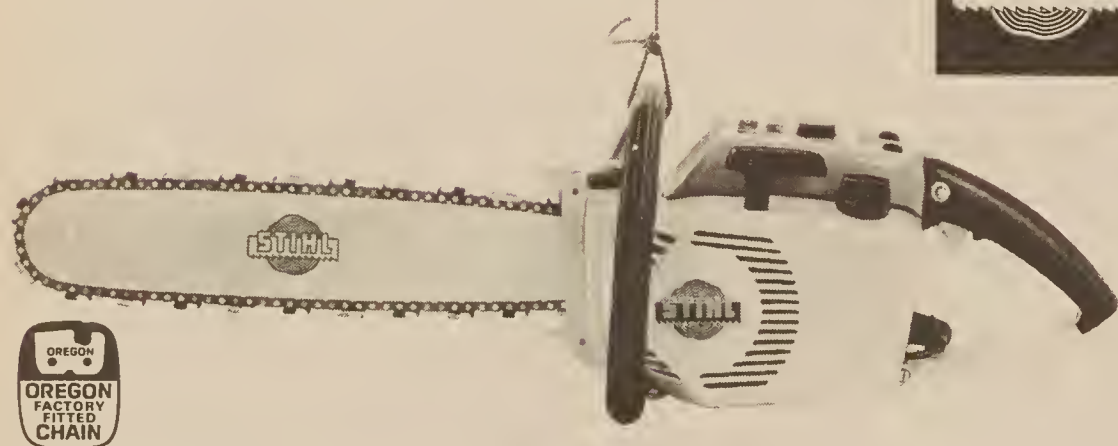
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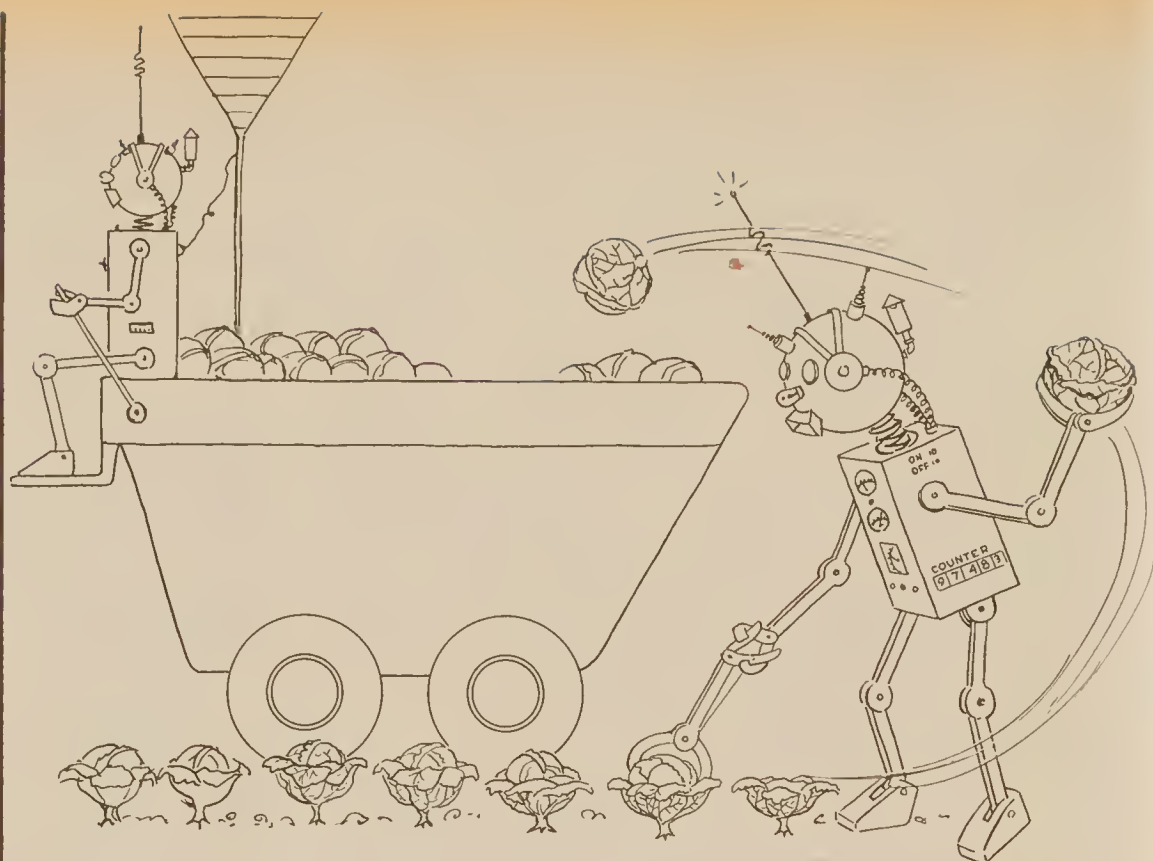
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Coming Soon

MECHANICAL HARVESTING OF CABBAGE

by Robert F. Becker*

THE INCREASE of grower interest in mechanical cabbage harvesting experienced since 1960 is a result of several changes. More growers are specializing by commodities and consequently growing fewer crops but larger acreages of each. In most cases, family labor is no longer sufficient to harvest the volume produced.

Interestingly, part of the necessity for specialization results from the development of mechanical harvesting equipment for other crops. With the adoption of the mechanical bean picker in the late 1950's, and now the rapid acceptance of the cherry shaker, less work is available for migrant workers over a long harvest season. This decrease in work opportunities in the area, together with the recent limitations on the importation of foreign farm labor and a general national labor shortage, has meant that fewer migrants are coming to New York.

Less Labor

With the predicted adoption of mechanical tomato, cucumber and apple harvesters, there will be even less day labor available in the area for harvesting cabbage. Then, of course, there is the fact that cutting and loading cabbage by hand is hard physical work. With each passing year fewer people are interested in this kind of labor... especially when easier, more lucrative jobs are available.

Because grower pressure for a mechanical means of harvesting cabbage is relatively recent, it is only within the last two or three years that any concentrated effort has been made. Today several state experiment stations, including the one at Cornell University, are actively working on the development of mechanical cabbage harvesters.

In addition, a few private individuals and one or two small farm machinery companies are involved. However, to the best of my knowledge, no large national farm equipment manufacturer has entered

ed the field. Probably this is due to the fact that cabbage acreage in the United States is relatively small when compared to many other vegetable crops. Because of the limited sales market, developers are hoping that their machines will harvest both kraut and market cabbage, and perhaps leaf crops like lettuce as well, with only slight modifications.

This fall should witness great activity in the field-testing of the various machines. For example, the Cornell unit has progressed to the point where a number of field trials under various conditions are planned, and it is my understanding that at least one private individual will have a few of his units available for sale. Only experience and trial under all conditions will determine which machines are ready for commercial production and which need further developmental work and perhaps even redesigning.

At first thought it would seem to be a relatively easy task to develop a machine that would remove cabbage heads from their stalks. However, cabbage heads, especially those used in kraut production, are heavy, and they tend to bend and twist the stalks that support them. They also vary to some degree in shape, size and maturity... even within a given field.

Tough Job

These growing characteristics make it difficult for a machine to pick up the heads and correctly position them so that the cutting mechanism can remove each head from its stalk at the same general location. In the case of kraut cabbage, where a straight butt cut is desirable for efficient coring in the kraut factory, this problem of head positioning by the harvester is especially important. Kraut cabbage is too low-priced an item to allow for much secondary hand trimming by either the grower or the processor!

Fortunately, uniformity of head
(Continued on page 23)

* Cooperative Extension Specialist,
Western New York

FRESH APPLE HARVESTER

FIRST of its kind in the country, a machine has been developed that shows great promise for harvesting, unbruised, fresh-market apples.

Professor William F. Millier and his assistants Kenneth E. Ryan and James A. Throop of the agricultural engineering department at the New York State College of Agriculture, point out that much yet remains to be done in perfecting the model, although initial tests were encouraging. The experimental machine will be tested in field trials this fall at the Geneva Experiment Station.

The principle used is of a pin-ball machine. The harvester has banks of prongs (it looks somewhat like an anti-aircraft gun battery) mounted on a fork-lift tractor for easy maneuverability. The prongs, the two side frames, and a catching frame . . . which is placed right under the prongs . . . all are heavily padded with cushioning material.

The machine can be raised or lowered so that the prongs can reach into any part of the tree, high or low, and it can shake the branches either horizontally or vertically, depending on which way the apples hang. When shaken off the tree the apples bounce through

the prongs like pinballs, fall onto the catching frame, and from there roll into a box filled with water. There a padded roll pushes them to the bottom, then releases them to float on the surface.

Second in Nation

New York State ranks second in the nation in apple production, with 20 to 24 million bushels per year, and about half of this crop is for fresh market outlets. Earlier in 1966 several mechanical harvesters for processing-type apples, based on a model perfected by other Cornell researchers, went on commercial production. If this present model works for fresh apples, it has a great future.



Professor Millier (at the controls) and one of his assistants on the model apple harvester during one of the tests.

Cabbage

(Continued from page 22)

size, shape and maturity have been shown to be greatly increased with the use of hybrid varieties. Hybrid market varieties have been sold for several years, and kraut types are just starting to become available. Observations have shown that direct field seeding also tends to increase uniformity at time of harvest.

Growing Practices

It seems probable that growers will have to change some of their growing practices. For example, perhaps growers may have to stop throwing soil around the plants and forming a ridge, because ridging may impair the effectiveness of the pick-up mechanism of the harvester. Control of weeds by chemical means may prove to be more necessary. Probably growers will have to do a better job of insect control, because the harvester will be unable to select and remove heads that are heavily infested with aphids, worms or loopers. Even plant spacing or distance between rows may have to be changed for the most efficient use of mechanical harvesting.

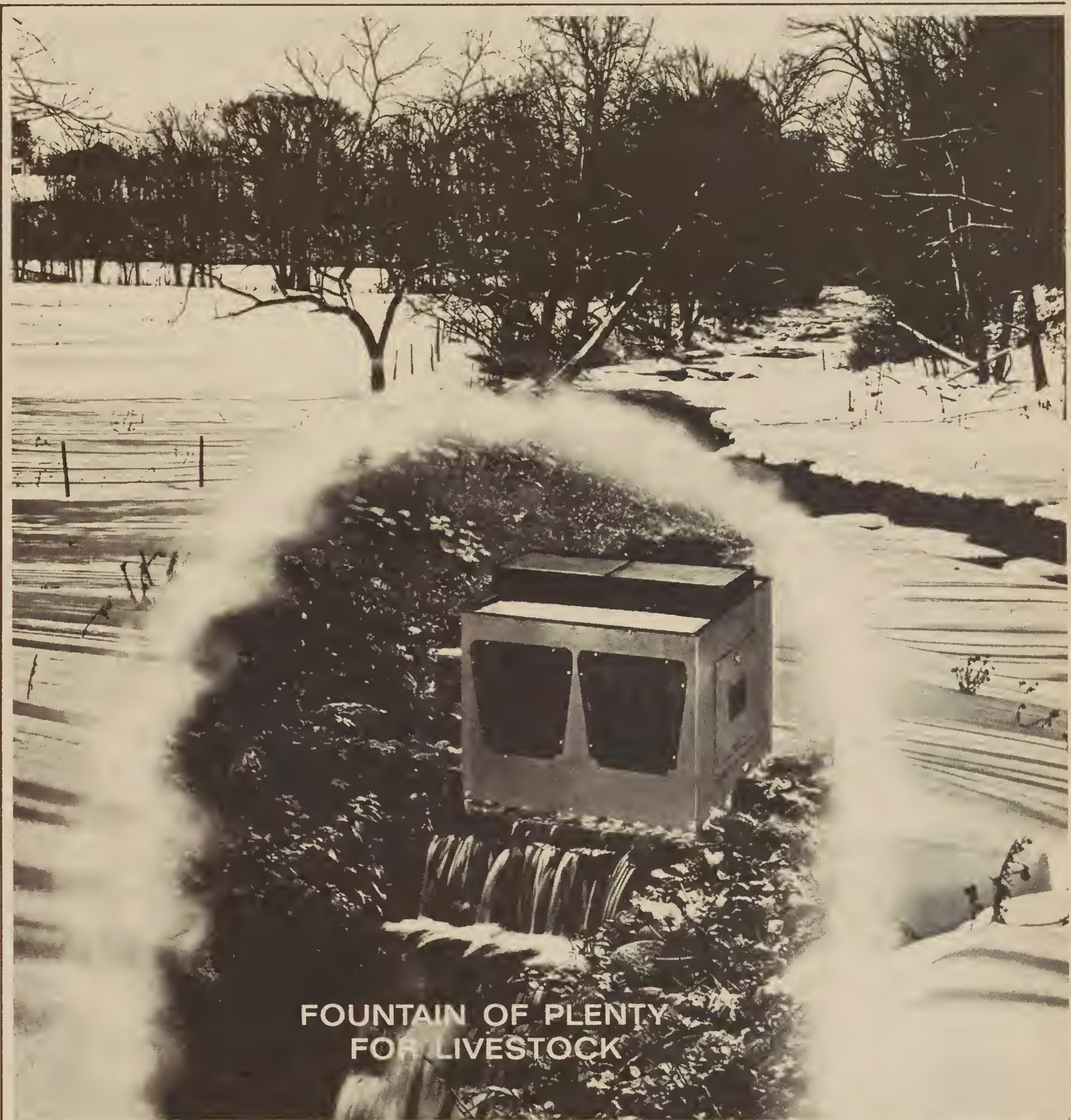
At the kraut plant, it may be necessary to more closely schedule deliveries, and a system of raw product grading may have to be employed to determine the amount of cull material in each load.

Who will own and operate the harvesters? Based on trends established with other vegetable crops, it would seem that, in New York, growers will become sufficiently specialized to justify owning a harvester. However, in Wisconsin it seems probable that the processors will own and operate the harvesting units.

Of course, for the first few years there may be variations from the predicted pattern. A processor in New York might buy a unit or two and do some harvesting until growers are specialized enough to each own a machine. Custom operators will also probably enter into the picture, at least in the beginning.

At this point no one can be sure what changes will take place in the industry when mechanical harvesting becomes a reality. However, we can be sure mechanical harvesting is coming and with it will come changes that will affect the entire industry.

American Agriculturist, October, 1966



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Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
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Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accom- panied by widespread damage.	

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Hornell	WWHG-FM	105.3 mc.
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Jamestown	WJTN-FM	93.3 mc.
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Olean	WHDL-FM	95.7 mc.
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FEMALES:

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Senior and Grand Champion — Golden Valiant Dancer, Henry Uihlein, Lake Placid Club, New York.

Reserve Grand Champion — Golden Jester Jessie, Henry Uihlein, Lake Placid Club, New York.

Junior Champion — Royal Aim Wallflower, Henry Uihlein, Lake Placid Club, New York.

BULLS:

Senior and Reserve Grand Champion — Farmer's Brown Penny, Stephens Brothers, Honesdale, Pennsylvania.

Junior and Grand Champion — Givia Beacon Brilliant, Henry Uihlein, Lake Placid Club, New York.

MILKING SHORTHORN

FEMALES:

Senior and Grand Champion — Primrose Beauty 16th (twin), Robert Acomb Brew, Bergen, N.Y.

Reserve Grand Champion — Mystery Scarlet Wililly 2nd, J.M. & H.M. White, Marathon, New York.

Junior Champion — Westover R.H. Louise, Gertrude A. Lathrop, Sherburne, New York.

BULLS:

Senior and Grand Champion — Mystery Histon Prince, J. M. & H. M. White, Marathon, New York.

Reserve Grand Champion — White's Double Duke, J. M. & H. M. White, Marathon, New York.

Junior Champion — White's Fair Prince, J. M. & H. M. White, Marathon, New York.

ABERDEEN ANGUS

FEMALES:

Senior and Grand Champion — Meadow Lane Georgina K2, Meadow Lane Farm, North Salem, New York.

Reserve Grand Champion — Jingos Pride of MacLeod, Mr. & Mrs. Sayre MacLeod, Phelps, New York.

Junior Champion — Meadow Lane Blackbud 23, Meadow Lane Farm, North Salem, New York.

BULLS:

Senior and Grand Champion — Rally Jemal 5, Rally Farm, Millbrook, New York.

(Continued on next page)

Reserve Grand Champion — Meadow Lane Town Crier, Meadow Lane Farm, North Salem, New York.

Junior Champion — Rally Jemal 30, Rally Farm, Millbrook, New York.

HEREFORD

FEMALES:

Champion — KF Miss Pawnee 6526,, Kujiwana Farms, Stormville, New York.

Reserve Champion — CU Husker Miss 40, Cornell University, Ithaca, New York.

BULLS:

Champion — K F Pawnee Domino 24, Kujiwana Farm, Stormville, New York.

Reserve Champion — Dominion Cruiser 21, Valley Field Farms & Cornell University, Dover Plains & Ithaca, New York.

SHORTHORNS

FEMALES:

Senior and Grand Champion — Sangamon Gloster,, Mr. & Mrs. F. H. Snethen,, Dewittville, New York.

Reserve Grand Champion — Fleetwood Missie, Algird F. White & Sons, Ghent, New York.

Junior Champion — White Empress, Terry S. Clark, Holley, New York.

BULLS:

Senior and Grand Champion — Sangamon Commander, Mr. & Mrs. F. H. Snethen, Dewittville, New York.

Reserve Grand Champion — Glencove Citation, Worden Brothers, Windsor, New York.

Junior Champion — Fleetwood Banker, Algird F. White & Sons, Ghent, New York.

SHEEP

Exhibitors of champion rams in the various breeds were:

Cheviot — Brooklea Farm, Bath, New York; Columbia — Harry Clauss, Canandaigua, New York; Dorset — Kenneth T. Moore & Son, Nichols, New York; Corriedale — Joseph Lawson, Pavilion,

New York; Hampshire — Van Vleck Farm, Woodbury, Connecticut; Montadale — Clarence & Joan Coombs, Canisteo, New York; Oxford — Knollview Acres, Camillus, New York; Rambouillet — Kenneth T. Moore, Nichols, New York; Shropshire — Wilbur & Betty Russ, Maryland, New York; Southdown — W. P. Carpenter & Son, Germantown, Maryland; Suffolk — Daniel Fitzpatrick, Wayland, New York; Tunis — Timothy Fitzpatrick, Wayland, New York.

Exhibitors of champion ewes in the various breeds were:

Cheviot — Brooklea Farm, Bath, New York; Columbia — Joseph Lawson, Pavilion, New York; Corriedale — Lawrence Barber, LeRoy, New York; Dorset — Kenneth T. Moore & Son, Nichols, New York; Hampshire — Van Vleck Farm, Woodbury, Connecticut; Montadale — Paul J. Freeland, Canisteo, New York; Oxford — A. L. Barney & Sons, Tilton, New Hampshire; Rambouillet — Kenneth T. Moore, Nichols, New York; Shropshire — Kenneth T. Moore, Nichols, New York; Southdown — James W. Lightfoot, Woodbury, Connecticut; Suffolk — Joseph Lawson, Pavilion, New York; Tunis — Brooklea Farm, Bath, New York.

SWINE

Champion ribbons in the swine breeds were awarded as follows:

Berkshire — Grand champion boar, Ken Wiley, Victor, New York; grand champion sow, Walter Lichtenwalner & Son, Emmaus, Pennsylvania.

Duroc — Grand champion boar and all champion sow, Happy Acres Farm, Waterloo, New York.

Hampshire — Grand champion boar and grand champion sow, R. M. Warner, Hilton, New York.

Poland China — Grand champion boar and grand champion sow, Clair Hartman, Gratz, Pennsylvania.

Yorkshire — Grand champion boar, Arthur Gabrielse, Lyons, New York; grand champion sow, William Nudd, Irving, New York.

Champion barrow — Strawbridge & McLeary, Stewartstown, Pennsylvania.

men's Compensation premiums.

Workmen's Compensation coverage may be purchased from a commercial carrier . . . or directly from the State Insurance Department.

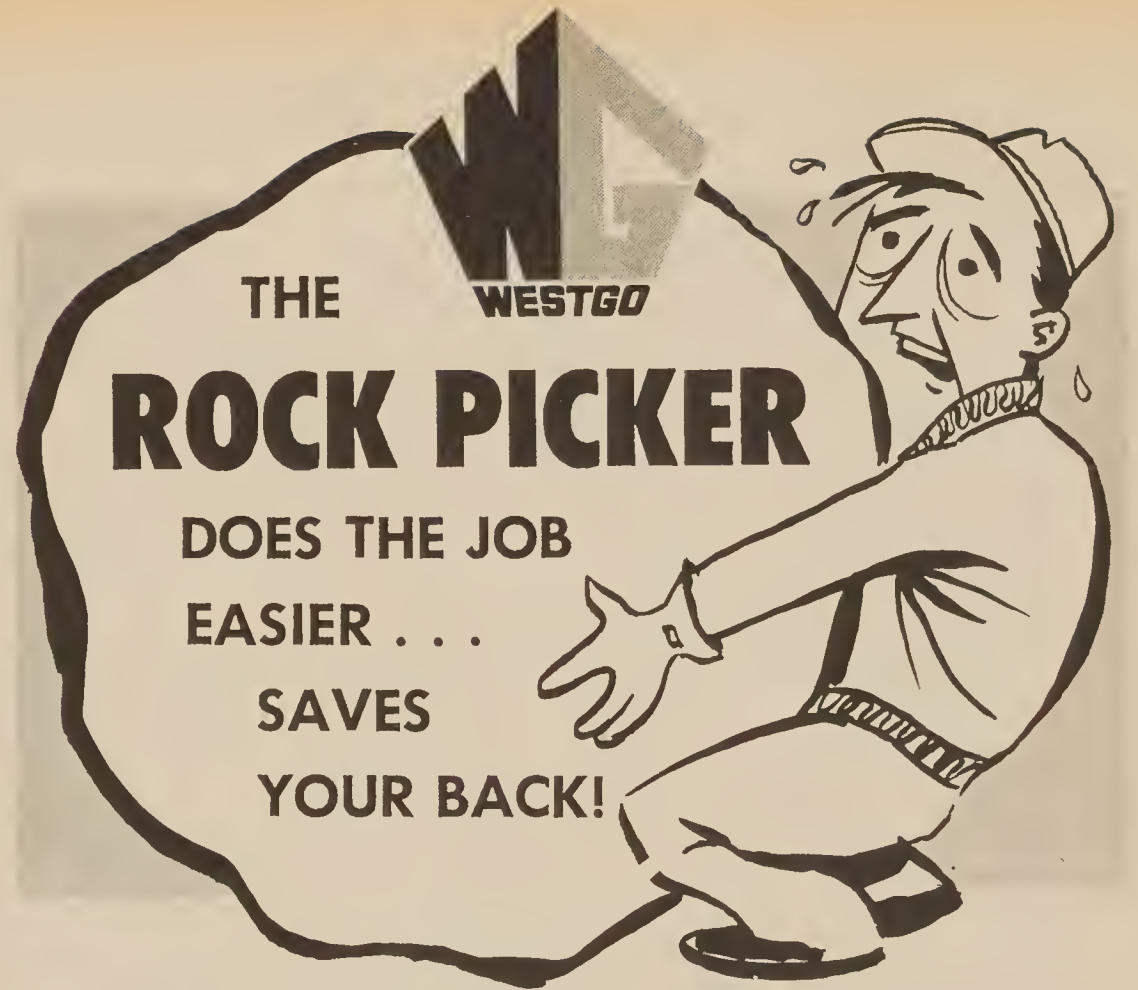
Workman's

(Continued from page 19)

nished, as well as cash wages.

As of now, New York farmers fall into one of four classifications for purposes of calculating Work-

Class	Definition	Annual Premium Rate/\$100 of Payroll	Minimum Premium
Poultry farms	At least 80% of gross receipts from sale of poultry and eggs	\$3.00	\$49
Vegetable or Berry farms	At least 50% of gross receipts from sale of berries or vegetables other than grain or corn for silage	3.10	50
Fruit farms	At least 50% of gross receipts from sale of apples, cherries, grapes, peaches, pears, plums, and quinces	4.50	64
General farm	All other farms, including dairy	6.10	80



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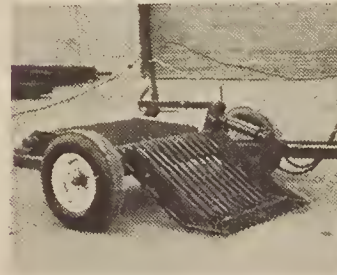
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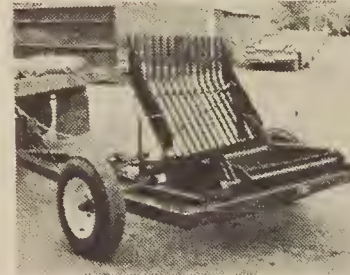
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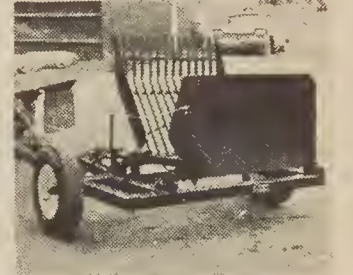
Costs Less Than a Buck a Ton! If you pick rocks only 5 days a year and move 60 tons each year, your cost with a WESTGO is only about \$1.00 per ton over a 10-year period. (Would you do it by hand for a buck a ton!) • **Pick a Few Every Day!** Hooks easily to any 2 or 3-plow tractor . . . hopper has 2,000 pound capacity. Locks in loading position for transport. • **Protect Farm Equipment!** When you keep your fields clear of rocks, there's less chance of serious damage to plows, cultivators, combines, other expensive farm machinery.



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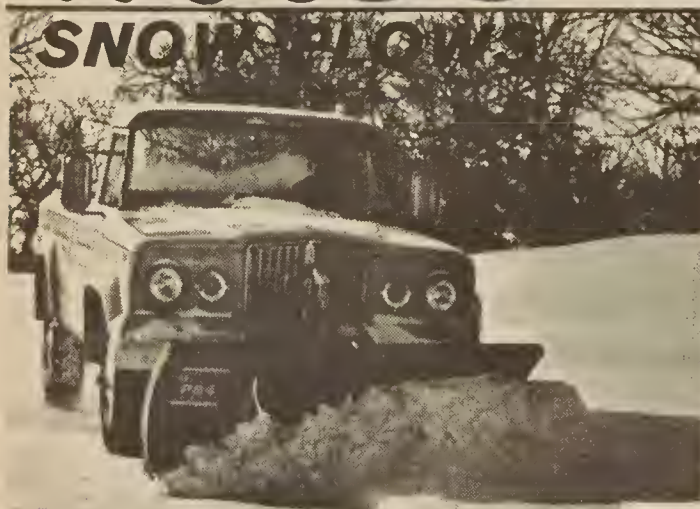
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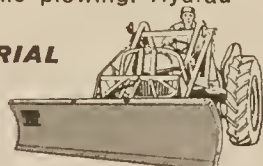


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New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain—without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

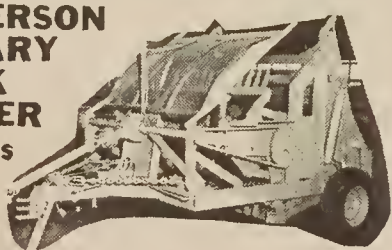
Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

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This substance is now available in suppository or ointment form under the name *Preparation H®*. At all drug counters.

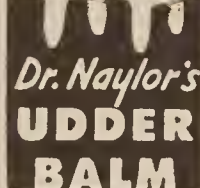
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MINIMUM MAINTENANCE

by Nenetzin R. White

OVER A PERIOD of years, I have watched people wrestling with small, medium and large yards and becoming discouraged. I am against this! Plants should be beautiful—a part of your outdoor living room—and they shouldn't be a burden; they should be fun! No one wants to spend the entire growing season working, for there should be time to enjoy your grounds and plantings. I hope these ten rules will help you to plan a garden, or to change yours so you can care for it easily.

1. Don't try to grow grass where it won't grow. Instead, use ground-cover plants adapted to your particular situation, or pave the area with blacktop, flagstone, or brick.

2. Eliminate impossible-to-mow areas. "Blot out" large areas with free flowing, billowing-type shrubs (forsythia, ninebark, viburnums, lilacs, etc.). In more refined outdoor living areas which are subject to close scrutiny, use evergreen ground covers (myrtle, pachysandra, junipers, coralberry, etc.). Construct dry walls or timber walls to eliminate steep banks.

3. Pave heavy traffic areas. Use stepping stones for informal walks and paved blacktop, cement, or flagstone for more formal areas. Shredded hardwood, crushed gravel, sawdust, or such are good for informal garden paths.

4. Keep drives, walks, and paved areas flush with surrounding lawn. Add topsoil and "feather out" into existing lawns to make easier mowing and to eliminate hand trimming or edging. If walks or areas have been previously edged with a gutter, fill with marble chips, tanbark, or gravel to allow easy wheeling of mowers.

5. Avoid angles and corners. Gentle curves make easier mowing, with no backing up to get into odd corners or the time consuming push-and-pulling of a mower. Experiment with lines and curves by laying down a garden hose. When you have a curve that is pleasing, use the hose as a guide line in edging.

Don't leave a deep 2 or 3-inch trench for the mower wheel to fall into. Rather, fill along the sod edge with sawdust, shredded hardwood, or such to the lawn level. Better yet, install steel or redwood curbing, or use brick to separate beds from the lawn.

6. Use brick or cement block mowing edge as mentioned above for beds, or use along edge of curbs and buildings. It provides a free wheeling surface for mower wheels and eliminates hours of hand trimming next to buildings. Set blocks or bricks in 3 or 4 inches of sand to provide good drainage. Try to obtain hard fired bricks, for they are less porous and will withstand frost action better.

7. Provide mowing strips around trees. They will protect tree trunks from injury and eliminate hand clipping and weeding. Either circular or square beds will be an attractive addition to your design,

and make bed wide enough to keep overhanging branches out of the way of the person mowing. Fill bed with marble chips, shredded hardwood, gravel, rough bark, or similar "dry" mulch.

8. Provide easy access for wheeled equipment. Be certain that gates, entrances, and planting beds are so constructed or planted that a good sized mower can easily go through. Even if you don't have a riding mower now, you may get one.

9. Locate outside water taps conveniently. Older houses in particular frequently lack a sufficient number of outside taps. It's time consuming to drag hoses all over a property. If you have areas to be watered which are a long way from the house, check with your local plumbing supply house. Plastic pipe and couplings are surprisingly inexpensive and easy for the do-it-yourselfer to install.

10. Use "minimum maintenance" plant materials. There is a "just right" plant for almost any condition you may have. Unfortunately, we see too many people fighting a losing battle trying to maintain plants in situations where it is practically impossible for that particular type to grow.

I have had 30-odd years of down-to-earth practical and professional experience with just about everything that grows in our Northeastern area. I am always glad to share our mistakes—and our successes—with you, so write to me.

AUTUMN SENDS REGRETS

by Evelyn S. Cason

The Marigolds gave a party, inviting the Garden Crew;
The Petunias passed the word along, telling those they knew.
The Zinnias came to the party, unaware they were too late . . .
Jack Frost had drifted in and closed the garden gate.



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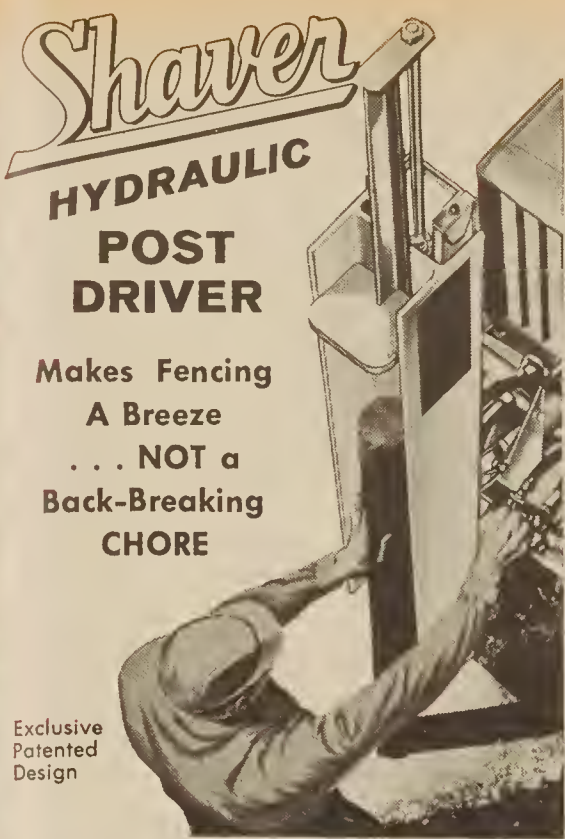
Send 25 cents in coins for your new Needlecraft Catalog to: American Agriculturist, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011.

American Agriculturist, October, 1966

Shaver

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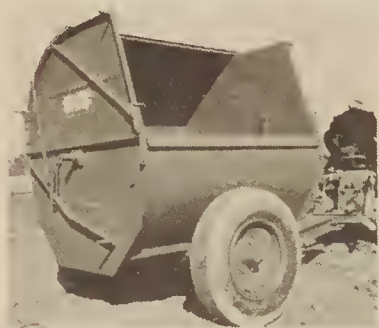
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With Our
ADVERTISERS



John Deere has introduced a new optional safety frame called Roll-Gard for agricultural tractors. It consists of two box-beam steel uprights and a box-beam steel crossbar. It is available with two companion options . . . seat belts and a steel canopy to shed sun and rain. This equipment prevents death or injury in case the tractor rolls.

Seal-Vac is a new system for storage of vacuum compressed silage. Manufactured by Gering Plastics Company, a department of Monsanto, Seal-Vac is a plastic envelope, set up on any flat surface, indoors or out. Silage in quantities ranging from less than 100 to more than 300 tons is stacked on a sheet of tough plastic, covered with a second plastic sheet, sealed with a plastic strip to make the envelope airtight. Air is then evacuated via a valve inserted in the top sheet, using vacuum pumping equipment available on most farms. Initial cost is reported to be \$1.38 per ton of silage stored.

The Patz Company, Pound, Wisconsin, has developed a Parts Hoist powered by a half-inch reversing electric drill . . . the reversible power is used to raise and lower parts. A brake on the hoist prevents overrunning due to coasting and prevents a heavy load on the hoist from slipping when the power to the drill is turned off.



Leon Howe, Hunt, New York, is shown using his new Zero Concord twin-vacuum pipeline milking system. Mr. Hunt reports that his installation, which combines a milking machine and bulk tank into an integrated system whereby one vacuum milks the cows and the other moves the milk into the tank, saves two hours a day on milking and cleaning up. He also says production per cow has gone up, the bacteria count has gone down to a new low level and a former small mastitis problem has been eliminated since he put it in. For more information on this type of bulk tank, write Dept. AA, Zero Corporation, 696-CH Duncan Ave., Washington, Mo.



International Harvester Company is marketing the 234 Corn Harvester, the only self-contained, power-mounted universal frame in the industry. It mounts on 26 different models of 6 makes of tractors. The universal frame couples to the tractor at only 3 points, and it takes only minutes to attach or detach the picker.

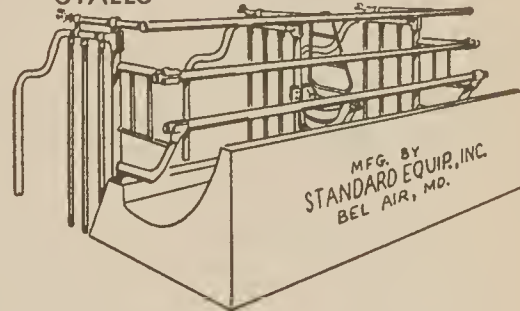
A new filter providing 1260 square inches of filtering area, designed specifically for hydraulic application, has been introduced by Char-Lynn. According to company officials this new filter provides constant filtration for protection of the system, and incorporates a visual cartridge condition indicator which tells the user when the cartridges need a changing.

The first major innovation in barbed wire fencing in more than 80 years is United States Steel's new USS SOLO single-strand barbed wire. The manufacture of the product features a method of continuously crimping the single strand to guard against overstretching and to allow for expansion and contraction caused by temperature changes. In addition, the wire is packed by a reel-less winding method which assures an even payout during installation.

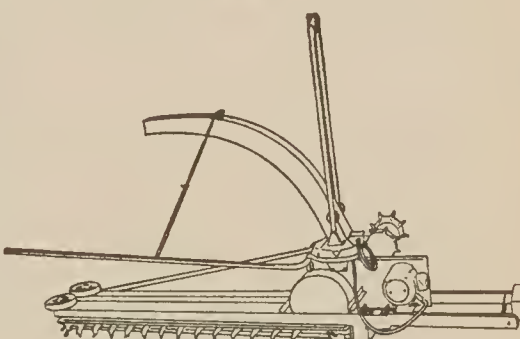
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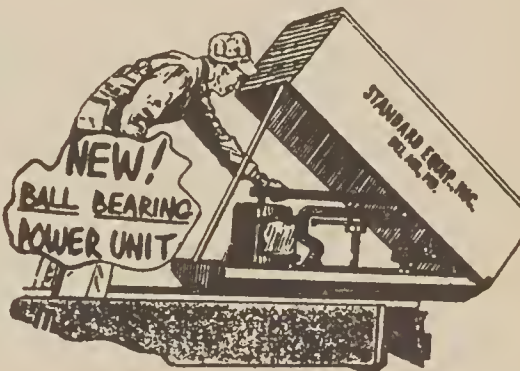
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For Governor

MALCOLM WILSON
For Lieut. Governor

LOUIS J. LEFKOWITZ
For Attorney-General

CHARLES T. LANIGAN
For Comptroller &
a Republican legislature.



and for
continued

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- Approved standardization of milk, which could add 10 cents a hundredweight to the income of dairymen and fill a consumer need;
- Signed legislation permitting less-than-a-year registration of farm trucks;
- Increased State aid for public schools 147 percent, saving local property-taxpayers vast sums for school support;
- Is pressing a Commission study on the preservation and best uses of agricultural land;
- Increased agricultural research funds by 65 percent;
- Established the Harness Horse Breeding Fund which will make N. Y. State preeminent in this field;
- Built or improved 12,000 miles of highways — extended for ten years, until 1972, the Erwin town road improvement program, and

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Co-Chairmen — Mrs. Warren Hawley
Mrs. Alton Knight

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Republican State Committee 315 State Street Albany, New York

PART-TIME FARMERS

Light horse care, dairy goat management, beekeeping... spare time farmers' enterprises... these are some of the subjects taught in The Pennsylvania State University's correspondence courses in agriculture.

How to select and feed a horse, and descriptions of the housing and equipment needed in his care are explained in the light horse course. There's a lesson on equitation... the art of horseback riding.

The dairy goat course presents the various breeds from which you make selection of bucks and does for a herd. The feeding and care of goats for milk production and other management problems are given.

Life history and habits of honeybees are given in the beekeeping course. Seasonal management of bees for comb and extracted honey production is taught. The control and prevention of diseases and enemies of honeybees make up an important part of the course. Honey marketing methods are given.

Other courses for spare time farmers include home vegetable gardening, orchard fruits, edible nut production, small fruits, poultry keeping, production of market turkeys, sheep husbandry and beef production. There's a course on the management of farm woodlots.

Anyone can enroll... whether or not residents of the Keystone State. There are no education prerequisites. Fees range from \$1.25 to \$4.25. For more information get a free descriptive bulletin from Penn State. Write to Bulletin, Box 5000, University Park, Pennsylvania 16802.

POULTRY PLAN

TO ASSIST in decreasing housing costs and still maintain a favorable environment for maximum production, Joe Claybaugh, Poultry Management Consultant for DeKalb, has developed a plan for a high-efficiency laying house. The new design embodies four basic ideas which allow poultrymen to reduce the space per bird to .46 square feet.

The four features which have gone into the house include: four rows of three-deck floor-supported cages; fully insulated, windowless clear-span construction with smooth inside liner; split baffle ventilation system; and hydraulic liquid manure removal.

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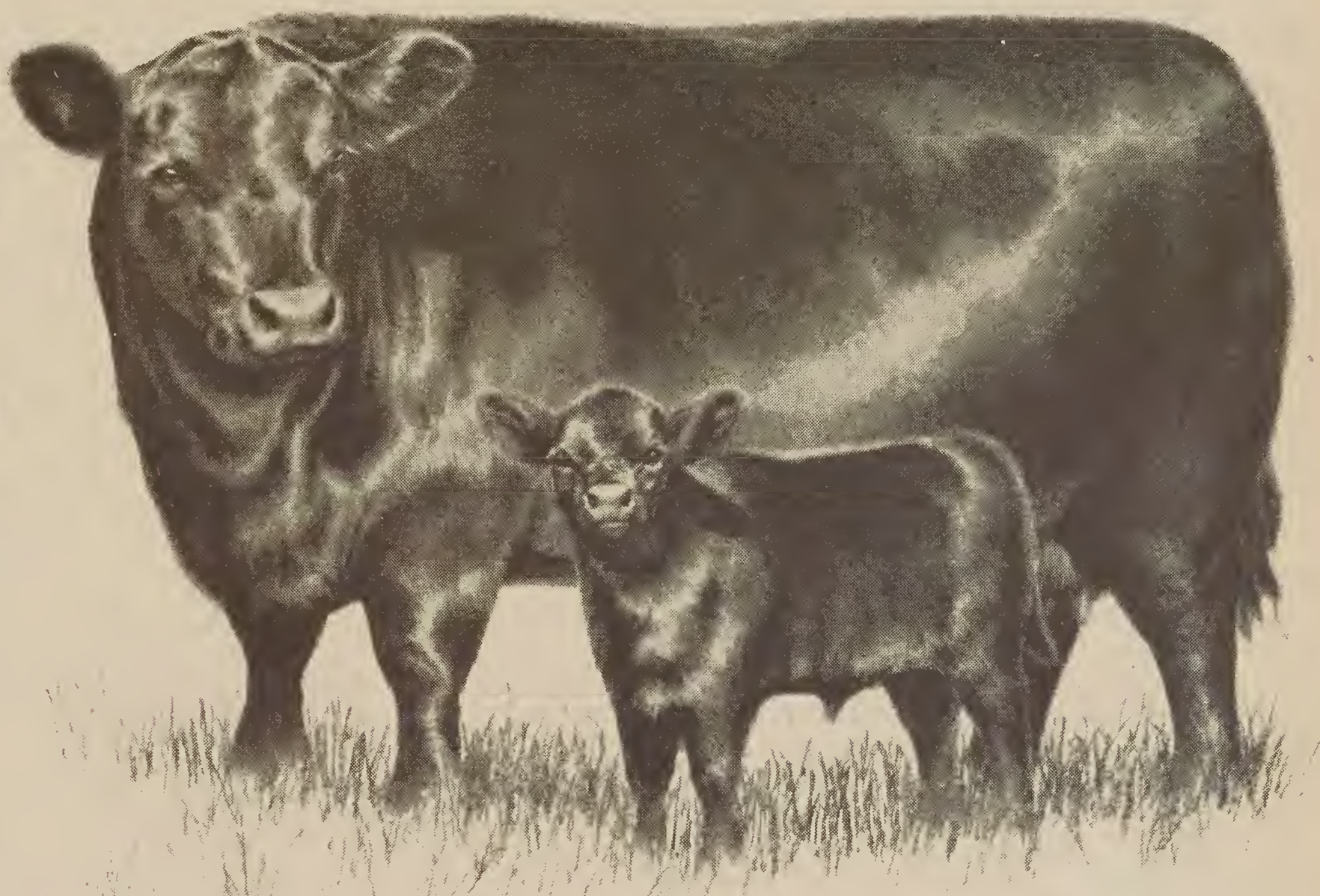
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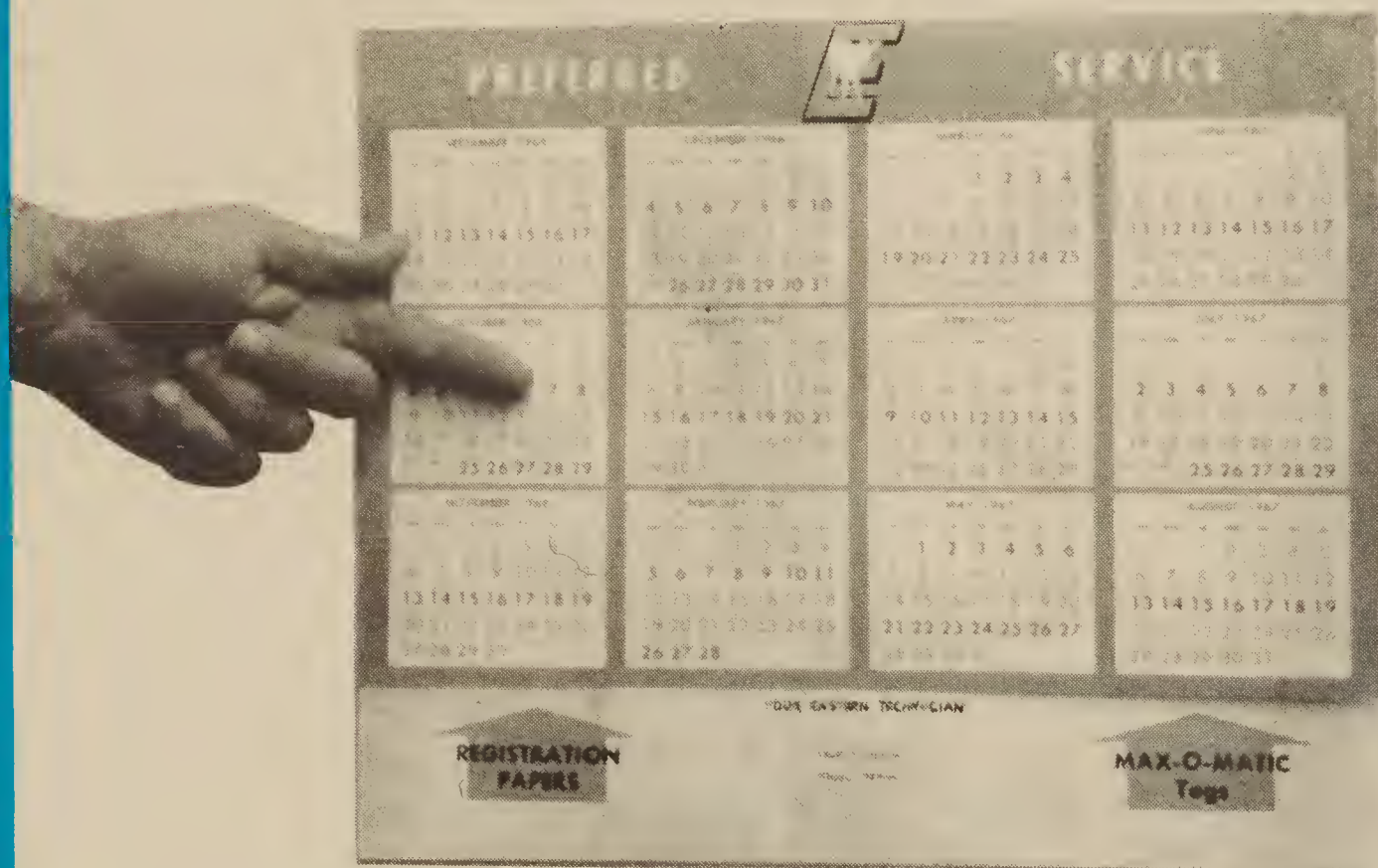
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LIVESTOCK



More Lambs — USDA scientists are experimenting with breeding techniques that produce a crop of lambs every 8 months.

The new system sounds deceptively simple, says Agricultural Research Service sheep geneticist Dr. Clair E. Terrill, who has charge of the research program. A ewe carries her lamb to term in about 5 months, and she doesn't need to nurse it more than two months, so it is possible for her to complete three terms every 2 years. A production cycle of 8 months, rather than 12, would theoretically increase the lamb crop by 50 percent.

Researchers have found that breeds of sheep and individuals within breeds vary in their ability to breed beyond the usual season that usually reaches its peak in September and October. Rambouillets, Merinos, and Dorsets come closer to year-round fertility than other breeds.

In 1961, Dr. Terrill and fellow geneticist Dr. George M. Sidwell began work with individual ewes which could breed in spring rather than just in fall. By selective breeding, the geneticists hope to develop year-round fertility in a new strain of sheep, which they call Morlam.

Reviving Pigs — Geneticist E. V. Krehbiel of the Agricultural Research Service has developed and used a method to help reduce losses from apparent stillbirths.

A flexible polyethylene funnel is fitted tightly over the pig's nose and mouth, then air is blown into the stem of the funnel, and thus forced into the lungs.

For the method to be effective, a pig's heart must be beating, and resuscitation must start promptly. Here are the steps: (1) Hold the pig by its hind legs with head down to drain fluid from the breathing passages; (2) turn the pig with its head up, and place funnel over nose and mouth; (3) blow forcefully into the funnel; (4) remove funnel and allow pig to exhale; (5) repeat steps 2 through 4 fifteen to twenty times per minute.

After several repetitions, the pig should kick or show another sign of life. Lay it on its side or stomach and massage chest and mouth. If it doesn't start breathing normally in a few seconds, resume artificial respiration. Pigs have been revived up to a half hour after treatment began.

Too Much Protein — Studies at the University of Illinois have showed that neither level nor source of protein influence litter size, number of live pigs farrowed, birth weight of live pigs, or livability. It is thought, therefore, that some swine producers may be feeding sows too much protein during the gestation period. However, the protein level does affect lactation performance.

Dr. E. R. Peo, University of

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Nebraska swine nutritionist, reports that a crude protein intake of one-half pound per head per day appears adequate for gilts.

Vibriosis Vaccine — A new vaccine to protect herds against vibriosis, outstanding cause of infertility in cattle, has been produced by Fort Dodge Laboratories. "TriVib" was originally developed by Montana State University and the Ray Foundation, and has provided conception rates up to 100 percent. It is considered an effective means to control vibriosis in herds dependent on natural breeding practices. It is available from veterinarians.

Dates to Remember

Sept. 30-Oct. 2 - Annual Convention American Society of Dowers, Inc., Danville Green, Vermont.

Oct. 1 - New England Angus Association Fall Sale, Gibbett Hill Farm, Groton, Mass.

Oct. 4-6 - NEPPCO Exposition and Convention, Farm Show Building, Harrisburg, Pa.

Oct. 9-15 - National Fire Prevention Week.

Oct. 11 - Poultry Servicemen's Short Course, University of Connecticut, Storrs.

Oct. 12-14 - National FFA Convention.

Oct. 12-13 - Dairymen's League Annual Meeting, War Memorial Coliseum, Syracuse, N.Y.

Oct. 13-22 - National Apple Week.

Oct. 20-21 - Agway Annual Meeting, Syracuse, New York.

Oct. 25-26 - New England Agricultural Chemicals Conference, Concord, N.Y.

Oct. 30 - End of Daylight Saving Time.

Oct. 30-Nov. 1 - International Apple Association 72nd Annual Convention, Las Vegas.

Oct. 31-Nov. 3 - 94th Session, New York State Grange, Leasureland Inn, Hamburg, N.Y.

Nov. 1-3 - Cornell Nutrition Conference for Feed Manufacturers, Statler Hilton Hotel, Buffalo, N.Y.

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The names and addresses of the publisher, editor and managing editor are: Publisher, A. James Hall, Ithaca, N.Y.; Editor, Gordon L. Conklin, Trumansburg, N.Y.; Managing Editor, Albert Hoefer, Jr., Ithaca, N.Y.

The owner is: (if owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock.) American Agriculturist Inc., Ithaca, N.Y.; American Agriculturist Foundation, Inc., Ithaca, N.Y.; A. James Hall, Ithaca, N.Y.; Albert Hoefer Jr., Ithaca, N.Y.

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	Average No. Copies Each Issue during Preceding 12 Months	Single Issue to Nearest Filing Date
Total No. Printed	241,712	236,049
Paid Circulation		
1. Dealers & Carriers	None	None
2. Mail Subscriptions	230,042	221,328
Total Paid Circulation	230,042	221,328
Free Distribution		
By Mail, Carrier or Other Means	4,154	5,820
Total Distribution	234,196	227,148
Office Use Left Over, Unaccounted, Spoiled		
After Printing	7,516	8,901
Total	241,712	236,049

I certify that the statements made by me above are correct and complete. A. James Hall, Publisher

Nov. 7-11 - Pennsylvania Livestock Exposition, Farm Show Building, Harrisburg, Pa.

Nov. 8-10 - 28th Annual New York State Insecticide and Fungicide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

Nov. 11-19 - Royal Winter Fair, Exhibition Park, Toronto, Canada.

Nov. 9-10 - New York DHIC Annual Meeting, Binghamton, N.Y.

Nov. 14-16 - New York State Farm Bureau Annual Meeting, Hotel Syracuse, Syracuse, N.Y.

Nov. 19 - State Hereford Association Annual Meeting, Syracuse, N.Y.

A IS FOR APPLES

by Alberta Shackelton

WHO CAN resist a bowl of fragrant, crunchy, sweet apples? Or a plate of unpeeled apple wedges served with cheese and crackers? And what is more tantalizing than the aroma of a warm apple dessert?

Apples are at their best in the fall, and you will find practically all varieties on the market soon. For cooking, apples with a tart flavor are preferred. Choose those that keep their shape well for baking, apples-on-a-stick, and for cinnamon apples.

Cook apples in pan with a tight fitting cover to keep in the flavor. Add sugar at the beginning if you want the apples to keep their shape. Add it just before taking off the stove when making sauce (also add spices then to prevent sauce darkening). Lemon juice sparks the flavor of less tart apples, and apples cooked in cranberry juice look pretty and taste good.

I hope you will like the following apple recipes.

APPLES-ON-A-STICK

- 8 medium red apples
- 8 wooden skewers
- 3 cups sugar
- 1/2 cup light corn syrup
- 1/2 cup water
- 1 drop oil of cinnamon
- 1 teaspoon red vegetable coloring

Wash and dry apples, remove stems, and insert skewers in stem end of apples. Combine sugar, corn syrup, and water in heavy deep saucepan. Cook over medium heat, stirring constantly, until mixture boils. Then cook without stirring to the soft crack stage (285), or until a small amount separates into threads which are hard but not brittle when tested in very cold water.

Remove from heat, add flavoring and coloring, and stir only to mix. Hold each apple by skewer and quickly twirl in syrup, tilting pan to cover apples with syrup. Remove from syrup, allow excess to drip off, then twirl to spread syrup smoothly over apple. For Halloween, roll in honey-flavored rice or wheat cereal immediately.

CINNAMON APPLES

- 8 apples
- 1 1/3 cups sugar
- 3 tablespoons red cinnamon candies
- 2 cups water

Pare and core apples. Combine sugar, candies, and water and simmer for 5 minutes. A drop or two of red vegetable coloring may be added for brighter color. Add apples to syrup and simmer until just tender, but not mushy. Baste apples with syrup as they cook. Serve as a relish or to garnish meat platter — especially good with ham, pork or chicken.

To serve as a salad, cut each apple vertically into about 6 pieces; cut only to within 1/2 inch of bottom. Place opened on bed of crisp salad greens (watercress is especially nice). Fill centers with mixture of softened cream or cottage cheese, celery, nuts, and mayonnaise. Garnish with mint leaves.

For a dessert Apple Porcupine, leave apple uncut and pierce generously with slivers of blanched almonds; top with whipped cream.

For Cinnamon Apple Rings, core but do not pare apples. Cut in crosswise, moderately-thin slices. Simmer slices in syrup as for whole apples.

BAKED APPLESAUCE

- 8 medium tart apples



For dinner tonight, make an apple pie that's different — one that's upside down.

- 1 cup sugar
- 2 tablespoons lemon juice
- 1/2 cup water
- 1/2 teaspoon cinnamon OR
- 1/4 cup red cinnamon candies

Pare and core apples and cut in eighths. Place in a deep casserole; add sugar, lemon juice, water, and cinnamon or candies. Cover and bake in moderate oven (350) 20 to 30 minutes, or until apples are tender. Serves about 8.

This makes less smooth apple-sauce than when sieved and is preferred by many. If desired, apples may be mashed with potato masher.

UPSIDE-DOWN APPLE PIE

Prepare crust and filling for your favorite two-crust apple pie.

Before placing bottom crust in pie pan, spread about 4 tablespoons softened butter over bottom and sides of pan. Arrange whole walnut or pecan halves (rounded side against pan) around edge of pan and over bottom, pressing into place. Sprinkle over the nuts about 1/2 to 3/4 cup light brown sugar and press down lightly on nuts.

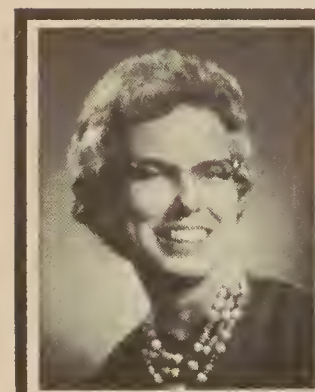
Now adjust the lower crust carefully and complete your pie. Don't heap apples too high in the center. Bake in hot oven (450) for 10 minutes, then reduce heat to 350 and bake 30 to 45 minutes longer.

After pie is baked and cooled slightly, loosen edges carefully with a spatula. Place serving plate over pie, invert quickly, and remove pie tin. Serve warm and top each serving with whipped cream or ice cream, if desired. This is a rich pie, so serve small pieces. Serves 8.

WALDORF SALAD DELUXE

- 2 cups diced, unpeeled red apples
- 1 cup diced pineapple
- 1 cup halved, seeded Tokay grapes
- 1 cup diced celery
- 3/4 cup pecan halves
- 1 cup miniature marshmallows
- 1 cup heavy cream, whipped and lightly sweetened (or whipped dessert topping)

Toss fruit, celery, pecans, and marshmallows together lightly and fold in whipped cream or dessert topping. Pile in salad bowl lined with crisp greens and pass with main course of meal, or serve as a salad-dessert. Serves 6 to 8.



VISITING

with

Home Editor Augusta Chapman

SOMETIMES I think it would be nice to work for a daily newspaper! With American Agriculturist being published once a month, I have a choice of reporting something after it happens (in which case it has long since ceased to be news by the time it gets to you readers), or taking a calculated risk and telling you about something that is supposed to happen.

Way back in June when I wrote my August "Visiting" column, I took such a risk and said we were going to spend our vacation in Hawaii. Then along came the machinists' strike against five airlines including Northwest, the one scheduled to fly our tour group from Chicago to Honolulu! After

one postponement and almost five weeks of indecision, it was finally necessary for our tour agents, Travel Service Bureau, to cancel the trip... and now for me to take back what I told you and say that we didn't go!

Of course Walt and I were disappointed, for we'd hoped right up to the last minute that the strike would be settled, or that space could be secured on one of the airlines still operating. But instead of packing clothes for sightseeing in Hawaii, we put shorts, slacks, and heavy jackets in our trailer and started for Lake Eaton Campsite, just outside the little village of Long Lake, in the Adirondacks.

We've camped at several other

sites in the mountains and keep telling each other there are many more we should try, but somehow we always seem to go back to Eaton. This year the weather was perfect, and we spent hours on the beach enjoying the beautiful clear water and the wonderful smell of hot sunshine on the pines.

As all campers know, one of the "things to do" at any park in the Adirondacks is visit the nearest dump to look for bears! We hit the jackpot the night we went and saw five good-sized black bears at one time and at quite close range. They were busy scrounging for food and, I suppose, are so used to flashlights being turned on them each night that they couldn't care less how many people are watching them. Maybe they even miss the attention when camping season ends!

New Hampshire Next

Leaving Lake Eaton, we revisited another area we love — the White Mountain section of New Hampshire. We thoroughly enjoyed the beautiful drives through

Franconia, Pinkham, and Crawford Notches and over the Kancamagus Highway. We browsed around the Wildcat Country Store at Jackson, paid our respects to "The Old Man," and stopped at Clarks's Trading Post again. Their trained bear show is still one of the best entertainment buys in the area, and we recalled our first visit there years ago, when our boys were small and the Clark brothers hadn't been in "show" business too long.

Mount Washington has always held a curious fascination for us. In addition to being the highest mountain in the Northeast (6288 feet), its history and weather statistics are intriguing. For example, the highest winds ever recorded were on the Summit of Mt. Washington (231 mph in April 1934), and the temperature has never risen above 71 degrees. Also, an 1100 foot well has to be electrically heated all year in order to get water through the permanently frozen ground just beneath the surface.

(Continued on page 37)

American Agriculturist, October, 1966

7030. Crochet lacy cape-stole in simple pineapple design - perfect for gifts! Directions for sizes S, M, L incl. 35 cents.

590. Cable-trimmed cardigan is knitted from neck down, all in one piece. Directions for sizes 32-34; 36-38 incl. 35 cents.

7193. Make Humpty-Dumpty pajama bag of gay scraps. Tots stuff him fat with PJ's. Easy directions for Humpty-Dumpty. 35 cents.

All Printed Patterns



4840. A waist-whittling skimmer, side insets. PRINTED PATTERN Half Sizes 12½-24½. Size 16½ takes 2-5/8 yards 39-inch. 35 cents.

4949. Three for you! A PRINTED PATTERN in Sizes 10-20. Size 14 jerkin, 1-1/4 yards 39-inch; skirt, 1-3/4; blouse, 1-5/8. 35 cents.

576. Jiffy-knit gift slippers - each a flat piece; use two needles. Directions for children's sizes 1 to 10 incl. 35 cents.

628. Fan-of-color afghan - shell-stitch background. Crochet it of knitting worsted. Directions for 9-inch squares. 35 cents.

7279. Capelet and hat set, which is knitted of mohair, adds elegance to an outfit. Directions for sizes S, M, L included. 35 cents.

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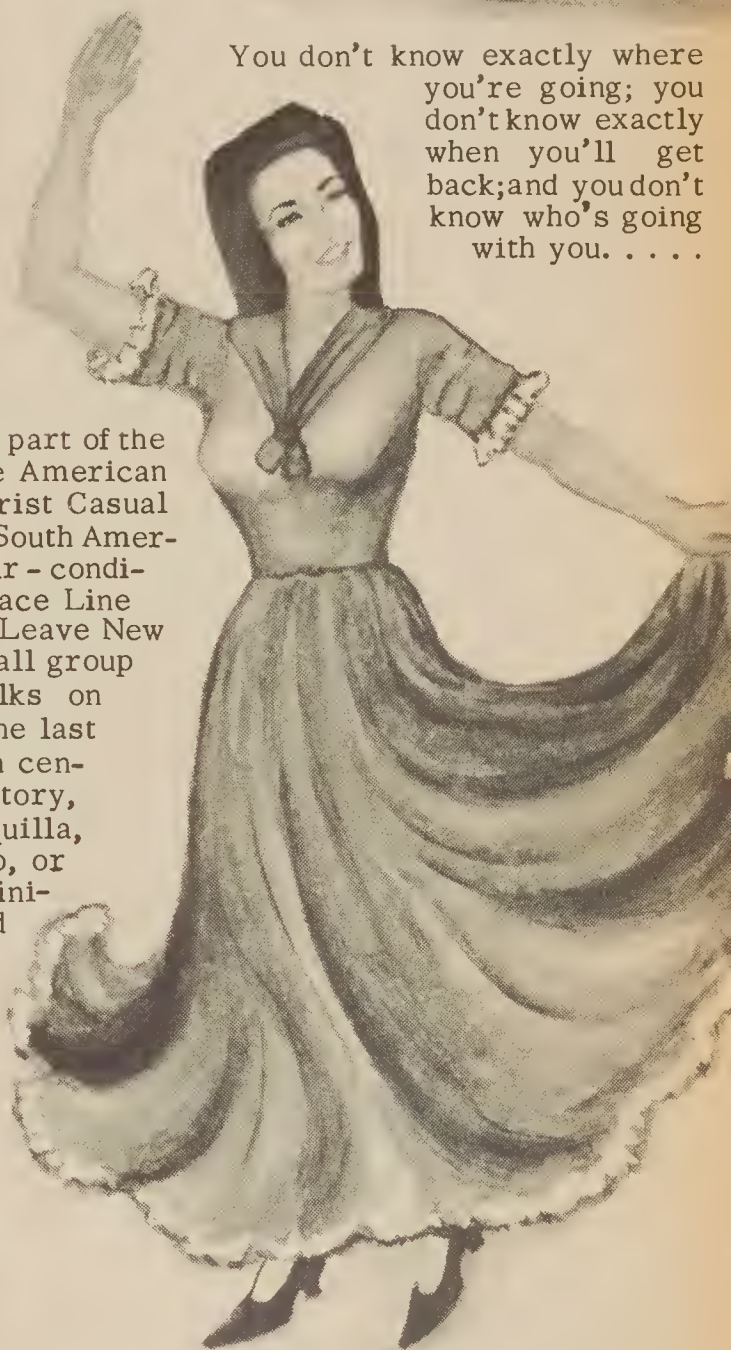
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ADVENTURE

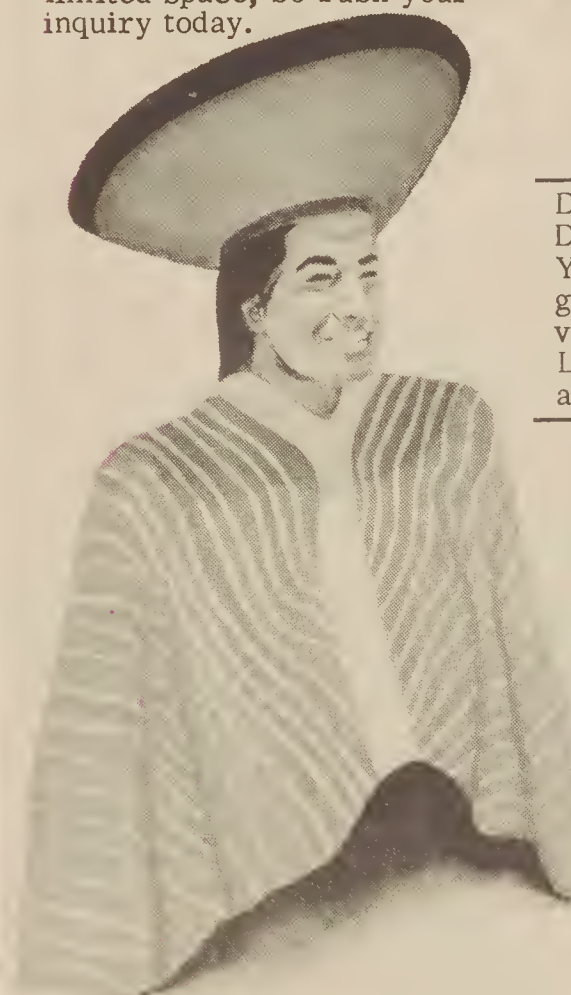


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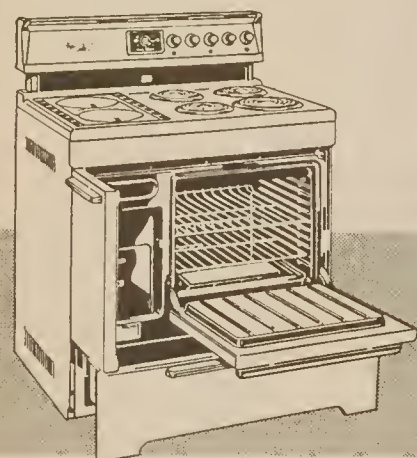
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The A A Clothes Line



8264 10-20

8261 12 1/2-26 1/2

8261. A soft approach to fall with lots of figure flattery. Sizes 12 1/2-26 1/2. Size 14 1/2, 35 bust, with sleeves, 4 yards of 35".

8338. Skimmer, cardigan two-some for sizes 10-20. With PATT-O-RAMA. Size 12, 32 bust, dress, 3 1/4 yards of 39"; sweater, 15 oz. of 4-ply knitting worsted.



8338 10-20

8264. A clever dress with military airs for sizes 10-20, bust 31-40. Size 12, bust 32, 3 5/8 yards of 35".



8309 12 1/2-26 1/2



8301 36-52

8309. Refreshing slimmer has tabbed waist. Sizes 12 1/2 - 26 1/2.

With PATT-O-RAMA. Size 14 1/2, 35 bust, sleeves, 3 3/8 yards of 35".



Cross-Stitched On Gingham

5178

8301. Enjoy a deceptively slim outfit for sizes 36-52. With PATT-O-RAMA. Size 38, 40 bust, 3 1/4 yards of 45"; 1/8 yard collar.



5103 SMALL MEDIUM LARGE

5178. For sweet-dreamers, cross-stitch playful pets on a gingham block crib cover. Pattern has graphs for embroidery; directions.



8311 2-6 yrs.

5103. This successful way to a man's heart is made of crocheted afghan squares. Pattern has crocheted instructions for small (36-38), medium (40-42), and large (44-46) inclusive.

8311. Here's a sugar and spice design with sassy bow trims for sweet little girls, in your life. With PATT-O-RAMA is in sizes 2, 3, 4, 5, 6 years. Size 3, 2 yards of 35".

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Send 50c more for the latest issue of our pattern magazine Basic FASHION. Every pattern features our exclusive Photo-Guide. Also, our Needlework ALBUM is filled with a wealth of handwork designs. Send 50c for your copy.

Visiting . . .

(Continued from page 34)

We hadn't been in the vicinity very many hours before I realized there were plans afoot to put a climb up Mt. Washington on our schedule! I remembered hiking up the Ammonoosuc Ravine Trail from the Cog Railway Base Station in 1961 . . . how I thought we'd never reach the top and had vowed, "Never again!"

Knowing that five years hadn't improved the mountain or me, I resisted for several days, but finally gave in. We decided to try the Jewell Trail (reportedly longer but not so steep) and to climb up one day, stay all night in the Summit House, and hike down the next morning.

It was a L-O-N-G climb, but the view from above timberline was gorgeous, sunrise on the Summit was breathtaking, and meals at the Summit House were truly delicious. It was a nice experience, but I confess thinking several times, both on the way up and back down, that it was a far cry from Honolulu, orchid nurseries, and the palm trees and sand on Waikiki Beach!

We finished our vacation back in New York State at Blue Haven Park, between Ellenburg and Ellenburg Depot on Route 11. We stopped for one night, but didn't leave until it was time to come home. Where else would we find all the facilities that any camp offers, plus an Olympic size swimming pool and a trout stream just behind our trailer?

Yellow Signs

One thing I always look for when driving along the country roads of New York and New England is the yellow and black American Agriculturist "Protective Service Bureau" signs. When they're new and shiny, I know one of our salesmen has been in the area recently and that you're undoubtedly a current subscriber to A.A. Then, I always wonder what you'd think if I stopped in to say "Hello" . . . sometime I'm going to try it.

The "Fair" Again?

Now, I've just returned from a visit to our New York State Exposition. At the Women's Day Luncheon, I noticed that even Director Harold Crealsaid "the Fair" once, and an editorial in this morning's Syracuse Post Standard favors going back to "New York State Fair," as reportedly does Governor Rockefeller.

I'm all for change when it makes something better, but never could see why our Fair became an Exposition! Let's hope next year we'll all go to the State Fair again.

New Cookbook

Alberta Shackelton, our Foods Specialist, has selected 80 Best-Ever recipes which have been published in American Agriculturist over the years, and we have included them in our fourth cookbook. There are recipes for first courses, main dishes, vegetables, salads and dressings, bread and

rolls, and desserts, also for meal-time extras and Holiday foods. We think you'll like the easy-to-follow directions and will enjoy serving these dishes to your family.

To get your copy, send 25 cents (in coin) to cover postage and handling to: American Agriculturist Cookbook, Box 370, Ithaca, New York 14851.

DO YOU HAVE . . .

A recipe for chocolate cake made with yeast? Mrs. Harry Carmean, 11 Ashworth St., Manchester, Conn., says it was mixed at night and baked the following day.

Any idea where Miss Esther J. Tyler of Bethel, Maine, can find a flat bread toaster, similar to the ones made for use on gas stoves?

Any idea where Mrs. Cabot W. Hint, 9 Montclair Ave., Batavia, N. Y., can get pieces of a silver-plated tea set manufactured by Meriden B.Co. about 1902?

We're sorry . . .

We failed to give photo credit for the picture of Mrs. Fae Hecht, author of the story "My Hobby is Gourds," which appeared on page 26 of our August issue. The picture was taken by Warren Inglese of the Rockland County Journal-News staff.

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Unlined twill jackets (36-42) 2.00
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MOHAWK



ED EASTMAN'S PAGE

WHERE IS IT ALL TO END?

I don't know when I have been so mad as I was early in the summer when I heard the President of the United States on television leave the impression that prices to farmers were too high, and that consumers should pull in their belts in the consumption of some farm products. Other members of the Administration echoed the same thing.

Fortunately, there was such an emphatic reaction from farmers, their organizations and representatives in Congress, that the government officials pulled in their horns and made a right-about-face, stating that the farmer was not to blame for the high food prices, and that they were due to other causes.

But some damage was done, of course, for it is always difficult to correct a wrong statement made by a high official. Compared with other commodities most food items are the best buys in the marketplace. In other words, wages and salaries go farther in buying most foods than they do in buying almost anything else. As a matter of fact, the consumer herself is largely to blame for the spread between what the farmer gets and the consumer pays.

Go into any modern grocery store and note how the consumer demands that practically every food product must be wrapped or put into a fancy package. Think of the tremendous amount of labor, paper and other costs now involved in the transportation, processing and packaging of most all food products before they reach the consumer! Many of the people who do that work are highly organized in labor unions whose members (mostly consumers) receive far more for their labor than the farmer does for his work and product.

One further word:

When the government attacked farm prices, the plea was made that they were causing inflation. That made me mad, too. Of course, the two real causes of inflation are the war in Viet Nam and the wild, reckless government spending. The Viet Nam war costs perhaps cannot be helped, but some of the other causes of inflation can be stopped. It is the billions of dollars which the government is spending in its so-called "War on Poverty" and its other socialistic schemes that are causing inflation. Space explorations are costing billions. These explorations are not necessarily wrong, but because of the rapidly increasing inflation space activities could be slowed down until we can afford them. That is

what you and I would have to do if we ran out of money in any personal project, no matter how important it was. But the government goes right on recklessly spending your money and mine, and that of generations to come.

Where is it all to end?

CREASING A HORSE

On this page in the August issue I challenged you to tell me what "creasing a horse" meant. There have been several letters. The first one I opened was from Mr. Owen Draper of Hannibal, New York, who had the right answer. He wrote, "I think that creasing a horse started in the old days when the wild horses on the plains could not be caught in any other way. It consisted in shooting a horse and creasing it just deep enough temporarily to paralyze it, but not deep enough to do any permanent injury."

"Of course they more than just creased sometimes, but that did not matter too much because the horses were very cheap."

OPPORTUNITY OF A LIFETIME

For more than thirty-five years as a farm editor, writer and speaker, I have been warning farmers of the danger of losing their independence by the control of agriculture by the government and its bureaucrats.

Always the argument has been that strict government controls and bossing are necessary because surpluses keep farm prices down. So, we got the controls . . . and we also got low prices just the same; sometimes the farm prices were almost ruinous.

But now the surpluses are mostly gone. They no longer serve as an excuse for bureaucratic control and domination of agriculture. The result is better prices . . . not because of government controls but in spite of them.

Now farmers and their organizations are faced with the most important decision in the last half century. Are we going to continue weakly to submit to the government running our business, or will we have the courage to stand up on our hind legs and say "hands off?"

To be sure, there will be difficult adjustments to be made. When a man leans on a crutch for a long time he has to learn to walk alone

all over again, and it takes courage to do it. When the crutch has gone he may get some bumps. But if he doesn't throw away his crutches, he'll be a cripple and a leaner all the rest of his life.

Here is the most important opportunity of farm cooperatives and organizations in generations. What will they do about it?

FORGOT

ACHES AND PAINS

Looking for a book not filled with sex and violence to read in these long evenings?

Looking for a book that you will be proud to give a friend or have every member of your family read?

Looking for a book that will really lift your spirits in these difficult times?

Then try E. R. Eastman's great book, *Journey to Day Before Yesterday*.

Every day brings letters about the book with statements like these:

"I sat up all night to finish it."

"We read it aloud to the family."

"I have read it twice and will soon read parts of it again."

"It helped me to remember when."

"Our young people loved it."

"I gave it to my father as a birthday present and was he pleased!"

"It was company to Mother and me when we were lonesome."

"It made me forget my aches and pains for a while."

You can get a copy of Mr. Eastman's intensely interesting book, illustrated with old-time pictures, by sending a check or money order for \$5.95 (New York residents add 12¢ tax) to: American Agriculturist, Department Book, Box 370, Ithaca, New York 14850

AN EVIL THING

On the New York State ballot on election day this fall you will be asked to vote your approval or disapproval of a New York State lottery.

A lottery under any name and for any purpose is gambling, and gambling is evil. The very fact that you are asked by the state government to approve a lottery shows how far we have sunk in morality.

How inconsistent can the government be when it has laws against gambling, and spends thousands of dollars to enforce those laws, while at the same time the same government asks its voters to approve a form of gambling?

Let's all of us do everything in our power to stop the very rapid trend of crime in America. And one way we can do it is to vote an emphatic "no" on state lottery . . . and get our friends to do the same.

A CHANCE TO HELP

As you know, the Future Farmers of America lost a great leader



OCTOBER

Aye, thou art welcome, heaven's delicious breath,

When woods begin to wear the crimson leaf
And suns grow meek, and the meek suns grow brief,

And the year smiles as it drows near its death.

Wind of the sunny south! oh, still delay
In the gay woods and in the golden air,
Like to a good old age released from care,
Journeying, in long serenity, away.

In such a bright, late quiet, would that I
Might wear out life like thee, mid bowers and brooks,

And, dearer yet, the sunshine of kind looks,
And music of kind voices ever nigh;
And when my lost song twinkled in the gloss,

Poss silently from men, as thou dost pass.

William Cullen Bryant

this summer in the death of Ralph Sutliff, Chief of the Bureau of Agricultural Education in the New York State Education Department. Ralph was always a very active and dedicated leader of FFA.

At the time of his funeral, the family requested that instead of sending flowers, each FFA chapter and other friends might send contributions to the New York Future Farmer Leadership Training Foundation. The treasurer is J. M. Carter, Lyons Falls, New York.

To a very great extent the future of rural America depends upon the leadership of young people now being trained in the rural youth organizations, one of the best of which is the Future Farmers of America.

Help this great organization increase its training facilities by a contribution in the name of one of its greatest leaders, the late Ralph Sutliff.

EASTMAN'S CHESTNUT

This is the time of year when political discussions sometimes develop into a cold war, so maybe you can use the following story sent to me some time ago by Mrs. James Selfridge. The nice thing about it is that either side can use it by simply changing the name to the political party that you support.

A weary traveler stopped at an old tavern and asked for a night's lodging. The landlord had only one empty room which was never rented because a famous Democrat had slept in it many years ago. But finally, after much pleading on the traveler's part, they agreed that he could have the room for the night.

When he arose in the morning the landlord asked him if he had slept well and he said: No . . . but he did not mind sleeping with one Democrat, but he would be darned if he wanted to sleep with the whole Democratic party . . . and that he never knew they were such a strong party until he saw them crawling out of the cracks of that bed!

American Agriculturist, October, 1956



UNORDERED

"I sent 25¢ for cards in answer to an ad I saw in a magazine. Along with the cards I had ordered came two boxes of cards and a glass dog, which I had not ordered. Now they have sent me a bill for \$5.25 and say they will turn it over to a collection agency within fifteen days if I do not pay."

"I have written them several times and have told them that, if they will send postage, I will return the cards since they are useless to me."

You are under no obligation to pay for unordered merchandise or to return it. Under a recently enacted New York State law, effective September 1, 1966, the sender cannot recover such articles or collect payment for them unless he can prove they were ordered, either in writing or orally. And the recipient of such items can plead that they were not ordered as a complete defense to any action brought by the sender for payment or return of the goods.

People living in other states, if they wish, can mark such items "Refused" and return them unopened to their post office, or hold them for a reasonable time in case the company should send someone to pick them up. Of course, they should not be used.

CAN YOU HELP ?

Mrs. W. E. Baldwin, R. D. # 1, Athol, Mass. would like small town Post Marks.

Charles S. Birely, 5210 Brinkley Road, S.E., Washington 31, D.C., would like the words to the poem, "My Dog," by John Kendrick Bangs.

Mrs. Walter Aither, Hyde Park, Vermont, would like to obtain an Orleans County Cook Book dating back to 1924.

Mrs. Robert Gordon, R.F.D. #1, Fremont, N.H., would like to locate a copy of a 1911 Sears Catalog. Would pay a fair price.

Mrs. Francis Seymour, R. 2, Bainbridge, N.Y., is trying to find these books by Jeffrey Farnol: "The Crooked Furrow" and "Beltane the Smith."

Do you know the poem which begins:

"We'll build," Seth Hunter told his bride,

"The finest farm in the countryside."

If you do, please write Mrs. Edna Peavey, R. 2, Box 105, No. Vassalboro, Me.

Mr. Lynn L. Langworthy, 4 Terrace St., Alfred, N.Y., would like the words to "Put Me Off at Buffalo," a popular song written at the time of the Pan-American Exposition in 1901.

Rena G. Fugle, 5278 So. Livonia Rd., Conesus, N.Y., would appreciate words and music to the following old songs: "God Pity Bessie the Drunkard's Lone Child," "Put My Little Shoes Away," and "Little Old Log Cabin in the Lane."

ADDRESSES WANTED

Anastasia Golomb Herink, born in Germany, whose last known address was Secaucus, N. J.

Sterling Blake Wallace, who when last known was working in Police Dept. in Chicago, Ill.

Caroline Solomon, daughter of Dwight D. Solomon, who lived on a Freehold, N. J. farm about 1920.

Descendants of James or Moses Miller who left Saratoga Co. about 1810 and settled in the vicinity of Pleasant Mt., Pa.

Mr. and Mrs. John and Edna Hart from Idaho, who were in N.Y.S. in 1933.

STOCK TONIC

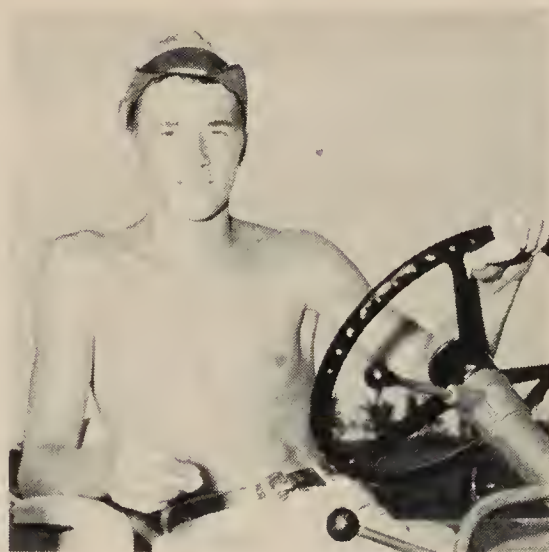
In August we mentioned three complaints we had received about the non-delivery of Snow's Stock Tonic. We are happy to report that since then these dairymen have all received refunds of their advance payments to the company, plus interest.

COMPUTERS

We have been receiving a number of complaints from our readers about their subscriptions to True Story and TV Radio Mirror magazines, both of which are published by the same company. Some months ago we were advised by their subscription manager that they had converted to a computer and had encountered problems in processing orders swiftly. We understand they are getting straightened out, and we can only suggest further patience on the part of subscribers.

We can sympathize with the publishers because we, too, are changing over to computers and there are problems. We assure our subscribers that subscriptions will be extended or back issues sent to make up for any issues missed during the process, and we feel sure this will also be done in the case of True Story and TV Radio Mirror.

Hand Caught In Silage Blower



Jerry Yancey

When cleaning a clogged blower Jerry Yancey's right hand was caught by the belt, drawn into the machine and crushed. With the flesh torn from his fingers and tendons damaged he spent thirty-one days in the hospital undergoing corrective surgery.



Local agent Bernard Virkler of Castorland, N.Y. delivered \$1402.14 to Mr. & Mrs. Gerald Yancey at their 600 acre dairy farm outside of Lowville, N.Y. The three North American policies on their son Jerry helped to pay his heavy medical expenses.

The Yancey family run their 150 head operation with only part time help during the summer. As a working family they have all eligible members covered with North American protection. North American has helped them several times before when other members have been injured.

OTHER BENEFITS PAID

Arby R. Swift, Cuba, N.Y.	\$ 201.42	Walter Belewich, Ava, N.Y.	\$ 290.34
Slipped and fell—injured back		Fell off combine—injured ribs	
Charles C. Kark, Port Crane, N.Y.	378.00	Robert W. Tompkins, LaFayette, N.Y.	128.56
Auto acc.—whiplash injury		Thrown from wagon—broke collar bone	
Wesley P. Allen, Gowanda, N.Y.	411.50	Lillian Christoff, Geneva, N.Y.	1419.85
Pinned by boards—broke leg		Auto acc.—multiple cuts, broke leg	
Lester Klahn, East Otto, N.Y.	781.03	Erich Marth, Albion, N.Y.	106.00
Cow kicked fork in foot		Slipped on barn floor—inj. ankle	
William Oelaney, Jr., Union Springs, N.Y.	997.53	Marie A. Bell, W. Winfield, N.Y.	113.57
Auto accident—internal injuries		Slipped and fell—broke elbow	
George A. Phillips, Jamestown, N.Y.	580.99	Winifred O'Brien, Massena, N.Y.	394.28
Auto acc.—whiplash, inj. back		Fell off chair—broke wrist	
Carl Steffen, Elmira, N.Y.	570.15	Clark Tharrett, Dickinson Center, N.Y.	461.99
Slipped and fell—injured back, knee		Struck by car—cut leg, broke foot	
Theodore Foster, New Berlin, N.Y.	120.00	George Slater, Sharon Springs, N.Y.	497.50
Cat scratch—blood poison		Slipped—injured back	
Albert Bruce, Saranac, N.Y.	317.64	Lawrence Morley, Mecklenburg, N.Y.	266.96
Air hose exploded—concussion		Truck accident—inj. chest, hip, knee	
Michele Beardsley, Marathon, N.Y.	747.80	Charles O. Beardsley, Interlaken, N.Y.	245.30
Stick ran in eye—loss of eye		Fell over blocks—injured back	
Earl Sines, Walton, N.Y.	252.86	Leo Smolos, Bradford, N.Y.	772.13
Cow lunged—broke arm		Kicked by cow—injured knee	
Myrle Phillips, Collins Center, N.Y.	350.00	John E. Turner, Hornell, N.Y.	299.00
Auto accident—broke hip and ribs		Fell from rope—broke arm	
Frans H. Meyjes, Crown Point, N.Y.	102.85	Hazel G. Fields, Berkshire, N.Y.	116.71
Using sander, slipped—inj. hand		Slipped on porch—broke ankle	
Seward J. Fefee, Brushton, N.Y.	213.57	Helen S. Bower, Trumansburg, N.Y.	1000.00
Truck accident—inj. ribs and chest		Tripped and fell—broke hip	
Clifford Bailey, Northville, N.Y.	1000.00	Ellis R. Elliott, Williamson, N.Y.	373.85
Slipped getting on truck—frac. pelvis		Fell from ladder—multi. cut & bruises	
Julia V. Copeland, Pavilion, N.Y.	335.99	Kenneth Winter, Perry, N.Y.	750.00
Car acc.—inj. neck and back		Hit by car—inj. back, shoulder	
Leo A. Satterlee, Oolgeville, N.Y.	587.35	Thomas Murphy, Penn Yan, N.Y.	104.38
Fell off wall—broke ankle		Repairing machinery—inj. foot	
Thomas L. Gracey, Watertown, N.Y.	297.60	Frances Noble, Gillett, Penna.	438.35
Cow stepped on foot—injured toe		Slipped on wet grass—broke ankle	
Arel J. Brown, Lowville, N.Y.	775.61	Roger Gibson, Youngsville, Penna.	181.50
Slipped and fell—broke pelvis		Working under car—broke arm	
George B. Young, Glenfield, N.Y.	205.70	Samuel Kanach, Neshanic, N.J.	107.13
Stanchioning cow—injured elbow		Cut by saw—injured hand	
Robert Brisbane, Lima, N.Y.	395.40	Preston Apgar, Hampton, N.J.	141.43
Fell on bottle—cut thumb		Slipped on step—broke fingers	
Susan Walker, N. Brookfield, N.Y.	318.93	Stanley Orr, Freehold, N.J.	214.28
Auto acc.—inj. chest, knee		Thrown from tractor—broke wrist	
OeWitt Brower, Spencerport, N.Y.	223.57	Robert McGinness, Cornish Flat, N.H.	968.45
Slipped and fell—injured chest		Slipped washing tank—inj. back	
Kenneth E. Gidley, Esperance, N.Y.	699.55	George W. Wood, Bethel, Vt.	1073.66
Kicked by cow—injured leg		Pinned by falling tree—broke foot	
Ernestine Walpole, Wilson, N.Y.	191.00		
Auto acc.—injured back			

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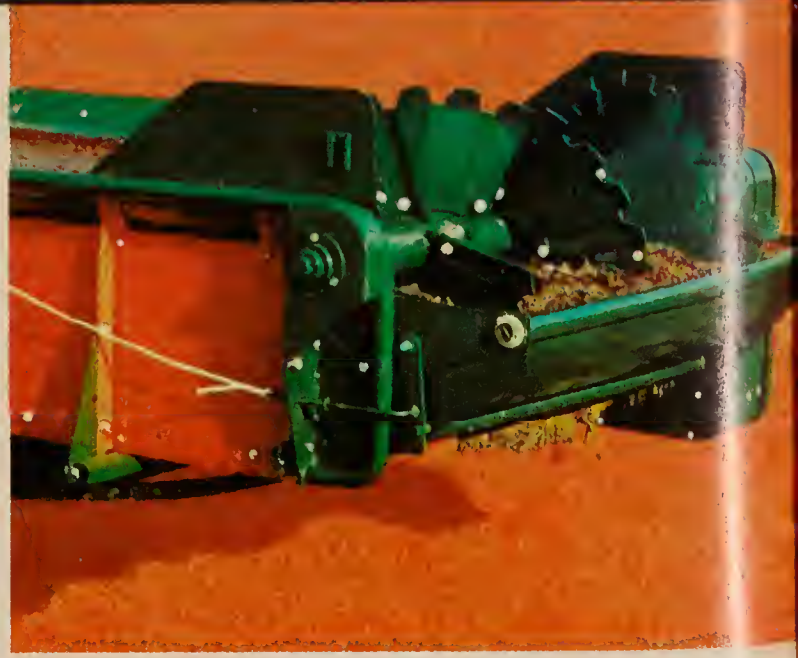
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HYDRAULIC ENDGATE. Fingertip control of endgate. Uses standard 8" single or double acting cylinder. Keeps liquid off roads and lanes. Hand crank also available. Fits all New Idea Flail and Single Beater spreaders.



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NOVEMBER 1966

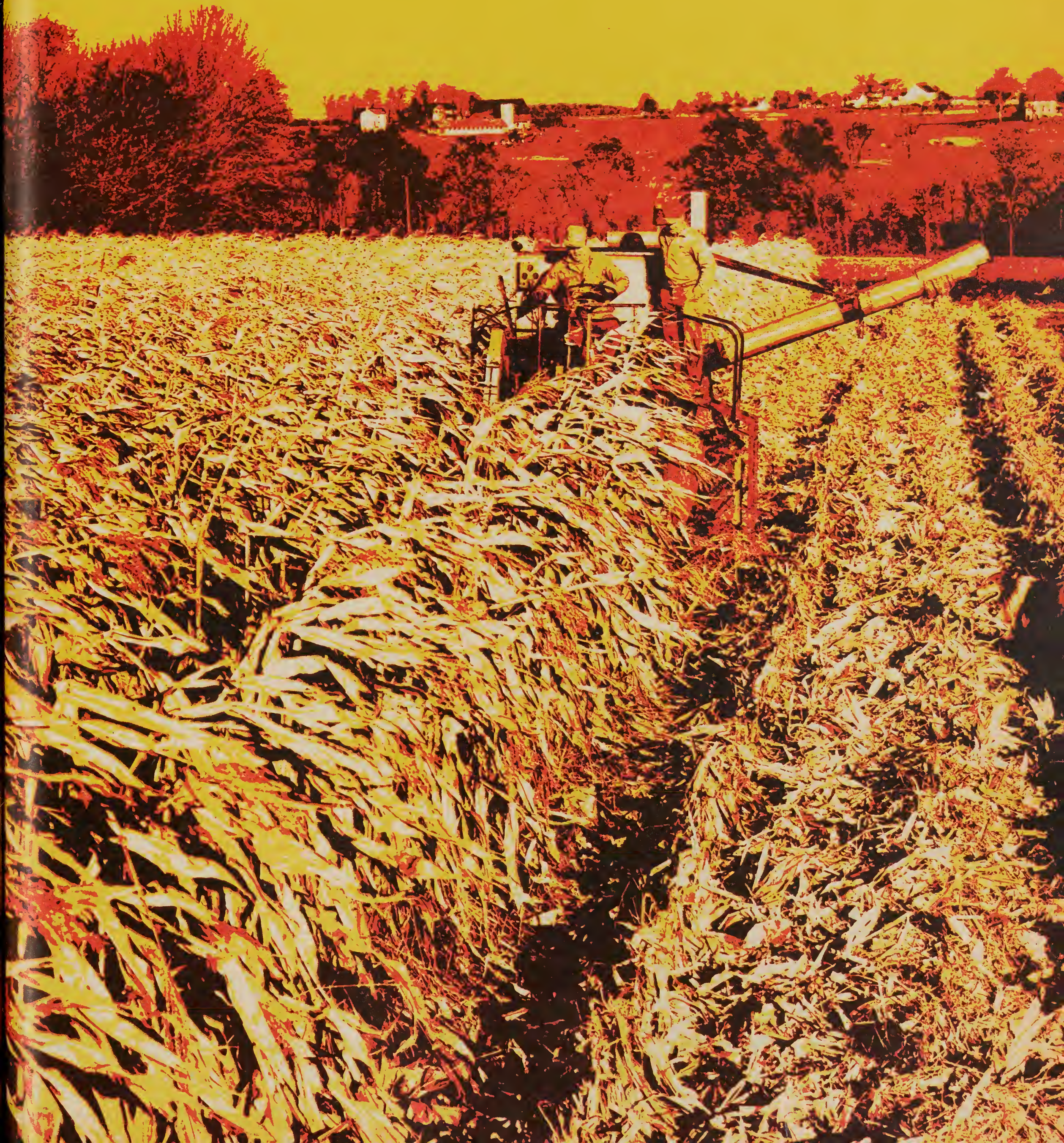


American Agriculturist

and the

RURAL NEW YORKER

FOR THE NORTHEAST FARMER





Today's heifer calves are your milk check tomorrow

The way you feed and manage your calves today can help determine how well they'll produce after they freshen and enter your milking herd.

With the outlook for high milk prices in the months and years ahead, it's to your advantage to follow the new low-cost Purina calf growing program. This program is designed to grow big-bodied heifers that freshen between 22 and 24 months with the capacity to produce plenty of milk right from the start.

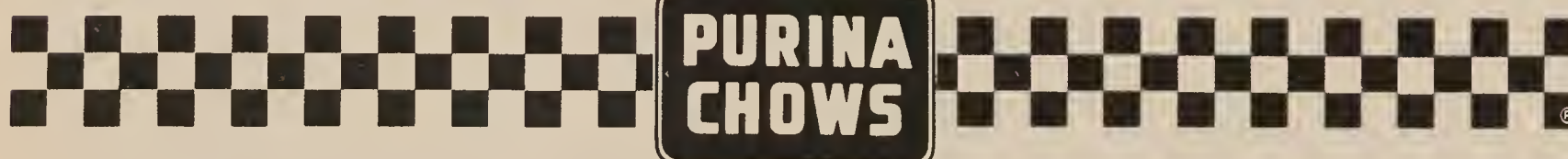
An important recent addition to the Purina calf growing program is NEW Purina Calf Growena. This fine new product joins the Purina calf starting "team" to help you grow

calves fast at low cost from 2 to 6 months . . . yet give them the high levels of protein and energy they demand during the vital early months. It is a sweet and tasty coarse ration, fortified with vitamins and minerals.

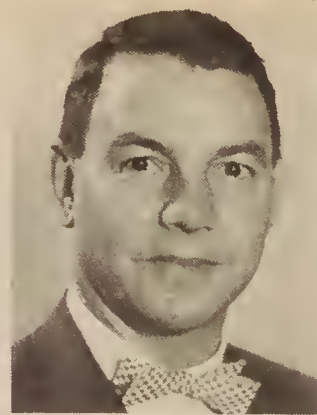


Give your Purina dealer a call. Or drop in next time you pass his store at the sign of the familiar red-and-white Checkerboard. Find out what many good dairymen are proving to themselves: That new Purina Calf Growena, teamed with Purina Nursing Chow and Calf Startena, grows big calves fast at low cost. Let Calf Growena help grow replacements you can rely on to build bigger milk checks for you.

RALSTON PURINA COMPANY • CHECKERBOARD SQUARE • ST. LOUIS, MO.



DAIRY FACTS



by Dr. J. P. Everett
Mgr. Purina Dairy Research

A recent Arizona study shows that a 1-month delay in breeding which results in a 13-month calving interval—rather than an interval of 12 months between calves—can cost a dairyman \$30 per cow in lost income.

There are several possible causes for failure of cows to settle: Disease or functional disorders, faulty management and nutritional deficiencies. In a New York field survey of herds with breeding problems, it was found that faulty management was responsible for 75 percent of the breeding difficulties in herds surveyed.

Consult your veterinarian on disease or functional problems. Although few true nutritional deficiencies (other than energy and sometimes protein) exist in good dairies today, the feeding program should be reviewed with your feeding advisor.

This 5-point management program may help you reduce breeding problems:

1. Keep accurate breeding records. Include breeding and rebreeding dates, calving dates, dry periods and notations on any problems. A chart should be posted in the barn to help anticipate heat dates.

2. Observe cows closely. To detect heat periods accurately, turn cows out at least twice a day—and preferably three or four times a day—to watch for signs of heat. Cows generally are in standing heat for 18 hours. For optimum conception they should be bred during the last 12 hours of the period.

3. Follow a regular health program. With the help of your veterinarian, make regular pregnancy checks, examine non-breeders and use vaccines for protection against reproductive diseases.

4. Control temperature. Problem breeders in the summer months should be kept in a cool, confined place from the first indication of heat until 10 to 14 days after breeding. Also, feed a cooling ration. (Contrary to opinion, a cooling ration is a low roughage, high concentrate ration.) Limit roughage to approximately one or one and a half pounds of hay equivalent per 100 pounds liveweight.

5. Follow a good feeding program. Rations adequate in protein and energy and fortified with vitamins, as well as essential minerals, are necessary for good reproductive performance.

WORMS



It's a good bet—
your entire herd
has worms.

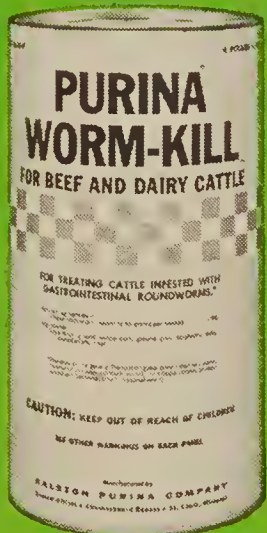
PURINA WORM-KILL

helps clean them
out in one feeding

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*Reg. Trademark Merck & Co., Inc.

Warning: Milk taken from treated animals within 4 days after the latest treatment and meat from animals slaughtered within 30 days after the latest treatment must not be used for food.



Make your Purina dealer headquarters for all your Animal Health Products. He can supply the Purina Wormer, Disinfectant, Insecticide or Treatment that best fits your needs.



The world's most complete line
of Animal Health Products.

American Agriculturist, November, 1966



American Agriculturist
and the
RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Vol. 163, No. 11

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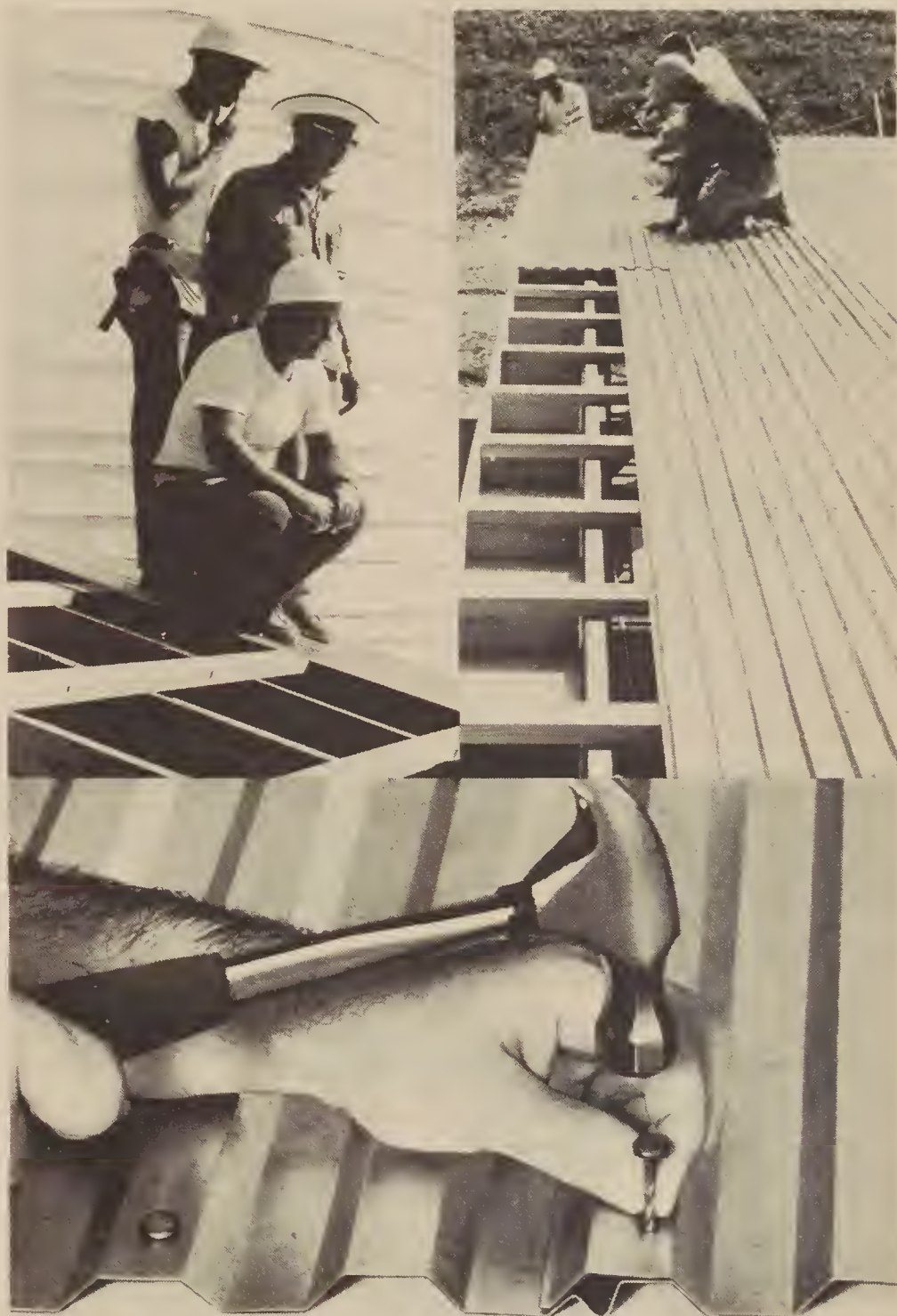
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EDITORIALS

by GORDON CONKLIN



THANKSGIVING

One of the phrases that I like best is "the attitude of gratitude." Some of my acquaintances possess material wealth in large measure, but are truly poverty-stricken because they do not appreciate what they have. Others I know have much less in terms of how men normally measure wealth, but their sense of gratitude makes them rich. Of course, there are also those you and I would call rich that appreciate what they have . . . and those we would label "poor" that wallow in bitterness. The real abundance of living is conditional upon an inner attitude.

As you and I gather with friends and relatives around the groaning tables of Thanksgiving Day, we have much for which to be grateful:

- for the overflowing abundance of our farms and factories.

- for the beauty of the earth, the vibrant blue of lake and stream . . . and the answering blue of the arching sky above.

- for our nation, beset within and without by the riptides of conflict . . . yet offering great hope for a better tomorrow.

- for the privilege of sharing the joy, the sorrow, the hope and the fear of others . . . moving with them along the hard but stimulating road of life.

- for the spiritual abundance so freely offered to us all by a compassionate Creator.

- for the few short years that are ours on this earth to live, and love, and lift.

Most of us, whatever our social status or location on the economic totem pole, are richly blessed. May all of us deepen our attitude of gratitude this traditional season!

EYE OF THE MASTER

Read a half dozen speeches recently . . . all talks presented at a national conference of beef cattlemen. Most speakers admonished their listeners to "learn to recognize the correct beef animal when you see him." Very little was said about production testing of bulls to check out whether their progeny fulfill the promise observed in the conformation of their sire.

In general, the beef-raising industry is doing pretty well at the moment financially . . . and it's hard to argue with success. But it looks to me as though beef cattlemen are moving too cautiously in the direction of really effective evaluation of the merits of their breeding stock . . . particularly when compared to the scope of production analysis in the dairy business.

A man's eye is notoriously fallible when it comes to detecting true worth behind appearance . . . whether it's women or beef cattle he's judging! He likes to believe he can "pick 'em," but the computers in DHIC . . . and the sire evaluation reports of artificial insemination organizations . . . prove that the human eye isn't a very good selection tool for performance potential.

College research people and extension specialists have worked out some good performance testing procedures that will put the finger on the good-looking beef bulls whose offspring are money-losers in the feedlot . . . and locate the sires with the go-go genes. A device has been developed that will photo-electrically "scan" the carcass quality of an animal before it is slaughtered. Artificial in-

semination techniques are being improved for use on beef cow herds, offering the chance to use really good bulls more widely. All these offer the beef industry better ways of improvement than the "eye of the master."

At present prices, a beef cattleman can afford the luxury of making mistakes . . . but when the economic winds blow unfavorably again, as they will, the industry will badly need the efficiencies offered by really good methods of animal evaluation. Cowpunchers may not think much of cardpunchers, but the data processing cards provide more objective information for making decisions.

WELL DONE!

Public employees all too often are assumed to be inefficient and pretty much oblivious to the needs of taxpayers. It's awfully easy to damn public agencies for not getting things done . . . especially if the "things" are something dear to our own hearts, or of financial significance to us personally.

From time to time, we write or call personnel of various departments of state governments . . . and receive varying degrees of courtesy and help. Without exception, however, the departments of agriculture in the various states have done what I consider an exceptional job of doing their level best to be helpful.

Usually we write on behalf of some farm family who needs information . . . or help in resolving some dispute with a dealer in agricultural supplies or farm products. Unlike some state governmental agencies, the replies from departments of agriculture are usually prompt and frank . . . and any follow-up promised is done.

Keep up the good work!

STEADY, MEN!

"It is no exaggeration to say that we are confronted with starvation in the next 12 months."

"The federal milk commission, acting for the New York territory, fixed the price with no profit to the producer."

"The census shows 4,000 fewer cows and 54,000 fewer heifer calves in New York State than a year ago! Dairying is declining in New York. Who did it!"

"Any attempt to minimize the scarcity of farm labor is an awful mistake."

These quotations sound right up to date, don't they? Some of our "experts" are waving the red flag and predicting mass starvation in the world, maybe even in these United States. Dairymen are grouching that milk prices to farmers are too low. Census figures show a drop in cow and heifer numbers, and many an official seeks to blame someone. Farm labor is scarce as hen's teeth.

Actually, though, all these quotations were taken from the pages of *American Agriculturist* issues published in 1918. We have bound copies going all the way back to 1842, and you'd be amazed at the similarity of human problems then and now. Sure, the machines and techniques are different . . . but the human equation remains remarkably the same.

So what, you say? Well, for one thing, let's not get all lathered up about the exaggerations of those who advise farmers to bury themselves in food surpluses again. People in this

country are a long, long way from starvation . . . and my guess is that the general public isn't really willing to pay farmers very handsomely for food to give away on a massive scale overseas.

Secondly, let's recognize that fighting for better prices for farm products will always be a job needing doing . . . requiring strong organizations and informed leadership. And farm labor will always be "scarce" in that it will always cost more than many farmers feel they can afford.

Finally, let's sit more easily in the saddle. We get to thinking that something new and awfully dangerous is coming down the pike . . . but it's happened before . . . and undoubtedly will again.

Perspective is a great thing; seeing the almost uncanny similarities of generations past to our own sort of adds a touch of humor . . . and a more philosophical attitude . . . to the frantic activity that seems to beset us all.

As the latest generation says, "Don't lose your cool!"

MINORITY GROUP

Amidst the burgeoning Great Society, with more and more people (in this country and overseas) eligible for no-strings-attached aid from American taxes, I see the need for a new organization of a minority group . . . the taxpayers. Taxpayers of the world, unite!

We'll call our militant organization SOCC (pronounced SOCK) . . . Spend Our Cash Carefully. Our official banner will show a field of poverty grass being sprayed with sweat as an herbicide. The organization's motto will be "Privilege and Responsibility, One and Inseparable."

Our mascot will be an animal with which we have much in common . . . a sheep constantly being fleeced, and having the wool pulled over its eyes.

The objective of the group will be very simple . . . a withholding tax levied on government. For instance, a department's budget might be \$1 million a year; \$200,000 (20 percent) would be withheld . . . somewhat similar to the way most taxpayers have a big chunk of income withheld by the Internal Revenue Service, Social Security, etc. Never receiving part of the money . . . yet knowing the full amount was authorized . . . would force public agencies to get along on "take-home pay," rather than "gross earnings."

The amount withheld would be put into an escrow account to eventually pay public debts . . . like the \$326,000,000,000 national debt, for instance. Many of us as individuals can save money, or pay off our debts, only through some psychological gimmick like the Christmas Club, installment purchase, or having funds withheld so we can't get our hands on all we earn. Maybe it would work collectively, too, in government.

Let's rock around the clock with SOCC!

FLATMAN AND RIBBIN'

A new comic strip, featuring Harry and Martha, has been introduced by the USDA's Consumer and Marketing Service in the organization's publication "Agricultural Marketing." Harry claims to be like flat broke and heads for the welfare department to sign up for food stamps. Martha ribs him about the fact that they aren't in the welfare category.

The story ends happily, though, with Martha striding joyously beside Harry up the Welfare Department's front steps and saying, "Oh, Harry . . . you're so good to me!" Harry pulls down the curtain with an admonishment to us all, "Check on food stamps at your welfare office!"

Very comical.

American Agriculturist, November, 1966



Affects Coloring Too — Evidence is accumulating to show that some of the spray chemicals do more than control insects and diseases. Guthion has been shown to produce greener-colored apple leaves, and it also brings on red coloring of the fruit. Sevin has been reported to delay harvest... on Rome Beauty 1 to 2 weeks; on Golden Delicious, 1 week; and on Red Delicious a week, when compared to Guthion-sprayed trees.

Virus-Free — By growing tiny plants from tips of stem tissue that can barely be seen, plant pathologist J. G. McGrew at Beltsville, Maryland, produced plants of the strawberry Suwannee free of latent-C virus, one of the more serious and widespread of the 25 strawberry viruses.

Suwannee has always been considered the best-flavored of all strawberry varieties, but it was a poor keeper, and with plants weakened by latent-C virus the variety almost disappeared from cultivation. Now virus-free plants are released by Agricultural Research Service to State departments of agriculture and experiment stations, who, in turn, certify them and redistribute to selected nurserymen. The nurserymen propagate the plants for sale to commercial growers and home gardeners.

Old Apples — The Worcester County Horticultural Society, 30 Elm Street, Worcester, Massachusetts, reports receiving 150 requests last season for scions of old apple varieties... and sending out 1200 scions. If you're interested in scions of apple varieties of yesteryear, contact the Society for details.

New Fungicide — A new fungicide, Botran, is being marketed commercially for the first time this year, and is recommended for control of rot and blight on peaches. Twelve peach-producing states, including Delaware and New York, are recommending its use.

Mulch Superior to Sod — Eight years of experimentation at The Pennsylvania State University has proved that yields from semi-dwarf apple trees can be increased 25 to 30 percent per tree by applying mulch instead of growing sod near the base of the trees. In one recent year, average yields of 8-year-old Golden Delicious trees were increased by 115 pounds per tree by using mulch.

The mulch conserves moisture, keeps down weeds, and maintains organic matter in the soil. And Dr. Ritter of Penn State finds that mulched trees produce apples with brighter color... and the apples are firmer and sweeter.

American Agriculturist, November, 1966

MARKET HANDBOOK

To fill the growing demand for a recent publication entitled "Farm Roadside Marketing in the U.S.," it has been reprinted.

The 128-page volume is a practical reference manual based on intensive studies of nearly 1000 roadside markets... the first research of its kind in over 40 years. It is written primarily for farmers interested in selling fruits, vegetables and other commodities at their own roadside establishments.

Since the publication was released a year ago, hundreds of requests have come from farmers and non-farmers in this country

and in Europe. The handbook has been well received by green thumb enthusiasts who live on farms and have become engaged in roadside marketing as a hobby or as a means of obtaining a supplemental income.

Copies are available at \$2.50 each, postpaid when a check accompanies the order. Write to: Food Business Institute, University of Delaware, Newark, Delaware 19711.

NATIONAL WINNERS

Among those who will receive the coveted national 4-H alumni key at Chicago in November are three residents or former residents

of the northeastern states:

Mrs. Dexter O. Arnold, Saugerties, New York, is a past national president of the General Federation of Women's Clubs, and was a 4-H Club member in Marlboro County, New Hampshire.

Dr. Leland H. Bull, Secretary of Agriculture for the State of Pennsylvania, was a 4-H member in Jefferson County, New York.

Although the Rev. Gayle V. Strickler is now pastor of the First Congregational United Church of Christ in Longmont, Colorado, his 4-H training began in Fayette County, Pennsylvania.

The National 4-H Alumni Recognition Program was set up 14 years ago by the Olin Mathieson Chemical Corporation.

buy 6... get a dollar back!

Look for this Andy Griffith display when you buy your animal health products. With the coupon from Andy, you get a dollar back on the purchase of six treatments of Medifuran or Pen-FZ. And you'll appreciate how both products fight those costly mastitis problems.

Offer limited*... act today.

WITHHOLD MILK FOR ONLY 36 HOURS AFTER LAST TREATMENT WITH MEDIFURAN



Medifuran lets you market three or more milkings you've had to discard up until now. You withhold milk for only 36 hours with this effective mas-

titis treatment. Medifuran contains furaltadone, one of the germ-killing nitrofurans and there's no expiration date on potency with Medifuran.

Milk taken from cows treated with Medifuran for mastitis should not be used for food during treatment and for at least 36 hours (3 milkings) after the last treatment.

THE DOUBLE-ACTION PRODUCT FOR STUBBORN MASTITIS CASES AND DRY COW USE



Use Pen-FZ as a treatment on dry cows that have a history of mastitis. This will help prevent mastitis "freshening flare-ups" at calving time. Pen-FZ is also effective in treating

stubborn cases of mastitis in lactating cows. By combining a nitrofurantoin with penicillin, Pen-FZ has a double attack on the bacteria that cause most mastitis.

Milk from cows treated with Pen-FZ for mastitis should not be used for food during treatment and for at least 96 hours (8 milkings) after the last treatment.

SEND THIS COUPON (OR ONE FROM YOUR DEALER) and 6 yellow carton end-flaps of Medifuran or Pen-FZ to:

*Coupon offer ends Jan. 31, 1967.

(Medifuran contains furaltadone, product of the Norwich Pharmacal Company)

(Pen-FZ contains nitrofurazone, product of the Norwich Pharmacal Company)

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ASHLAND, OHIO 44805

Be sure to include 6 yellow end-flaps. Fill out this coupon and you'll receive a check for \$1.00.

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Expiration date — January 31, 1967. Limit: \$1.00 per customer.

M-7-D

THE CASE FOR THE VET

RECENTLY I had the opportunity to talk with a group of farmers who meet regularly through the fall and winter to further their knowledge of farming methods and ideas by exchanging ideas and information, and bringing in outside speakers on various phases of agriculture. Usually when one of us has talked with this group the subject has been herd health, or some particular disease problem new to the area. This time their leader asked that

the subject be "How to Keep the Veterinary Bill Down."

The cynic might say: "That's easy. Just don't call the veterinarian." Before we answer such a question we have to understand the definition of a veterinary bill. It could be the cost of veterinary service, or the cost of both veterinary service and medicine. Or we could go a little further and call it the farmers' "disease bill." In this way we could put the cost of veterinary service and veterinary medi-

cine... including such things as louse sprays, mineral mixtures and disinfectants... on one side, and on the other the cost of actual loss of dead animals, the loss of milk and meat and, of course, the hard-to-price loss of potential genetic value. We could say that the more we spend on the one side the smaller the cost would be on the other. Like all things in agriculture, whether it be the use of fertilizer or labor-saving devices, or the cost of insurance, there is a balance in which both costs are kept to a minimum and the farmer makes a profit.

It often seems that everyone in the world is entitled to a profit before the farmer gets his, if any

is left. Farmers today are in business to make a profit, and the ones who make the biggest profit are those who make the greatest use of good management practices, which include getting the most out of their use of veterinary service. The man who sells service to the farmer, whether he be a machinery repairman, fertilizer dealer, insurance man, or veterinarian, does not stay in business long if he does not go on the premise that the farmer must make a profit before he can pay for this service. With this idea of profit in mind, let's discuss what you as a farmer can do to cut down your disease cost.

First, decide who your veterinarian is going to be. It is fine to try several different veterinarians till you decide who best suits your needs, but anyone who calls one veterinarian one day and another the next time is wasting his time, as well as the veterinarian's. In an emergency, when one veterinarian is unavailable for quite some time or away on vacation, then anyone whom you can get quickly is the best, but the routine herd health work, particularly sterility problems, should be handled by the same veterinarian year in and year out.

Money Savers

From there on it is all the little things that are money savers. To start out, call early in the day. You are paying your veterinarian for time. If you call him at 10 a.m. to come at chore time, he certainly won't have time to spend with a lot of routine pregnancy checks and sterility work. In the meantime you'll be trying to milk. As far as I'm concerned, the most important job done on your farm is the milking. Don't spoil it by trying to have veterinary work done at the same time.

Don't leave routine work till you have an emergency such as a milk fever, and then spring the old "As long as you are here, Doc..." There are places that I never rush to for milk fever or calving cases because I know very well that when I get there I'm stuck for an hour doing pregnancy exams, looking at feet, and opening teats. The man who calls the night before for an appointment and has all his records ready and the cows confined deserves to have his veterinarian come when he says he will, not two hours later because some neighbor had a milk fever and decided while the veterinarian was there to get a lot of other work done.

On the other hand, don't hesitate to try to work things in together. Non-emergency calls should be placed early in the morning, and at that time tell your veterinarian what else you have to be done.

If farmers in your area milk at 5 a.m. and 4 p.m. and you milk at 8 a.m. and 7 p.m., don't expect that you can call after milking and find your veterinarian free to come to your place on a routine call. If you call in at 10 a.m. with a cow to clean and your veterinarian was just by your place at 9.00, you

(Continued on next page)

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can't blame him for making you wait till late in the day and increasing your cost a little.

Have a list made out, either on a noteboard or a blackboard, as to what is to be done on each call. The few minutes it takes you to write it down and the two minutes it takes the veterinarian to read it can save you actually hours of time, and assure you of nothing being missed. Of course, a list isn't much good unless the cows are tied and marked, or someone is there to tell the veterinarian which cow is which.

It should go without saying that you can't afford to pay a veterinarian to stand around while you look up breeding and freshening dates. Not only does this cost money in wasted time, but it deprives your veterinarian of valuable information that he needs to make a proper diagnosis.

Stay With Him

When the veterinarian arrives at your farm, either stay with him yourself or put a good man with him. Remember he is costing you money every minute he's on the place, and if you keep leaving him to feed calves, dump milk or to throw down hay you lose two ways . . . first, he has to waste time standing around waiting for you, and second, being human, he figures that since you are not interested in what he does he will do a minimum job.

You just can't afford to pay a veterinarian to drive cows or catch calves, yet every veterinarian in large animal practice spends hours each week doing these things. Of course, no veterinarian minds helping to head off a cow going into a box stall, or helping you out as a neighbor would, but some farmers overdo it.

A foot trimmer is available in most areas, and most of them do a good job. Don't waste money having your veterinarian do routine foot trimming, or let cows in need of trimming go so long that they need veterinary attention because of severe lameness. I believe a foot trimming course is being offered at Delhi Agricultural and Technical Institute this fall. Any farmer who can't trim feet

and would like to learn how should investigate this. He could save himself hundreds of dollars by learning to do a valuable job on his herd.

Pregnancy Exams

A recent article in another farm magazine stated that a farmer could save himself money by doing his own pregnancy exams at 60 to 90 days. While I respect the man who wrote it as one of the best farmers I know, that statement was misleading. Few farmers have the number of cows to check to be adept at doing pregnancies at sixty days, and to be of value they should be done between 30 and 60 days. Doing pregnancies is like milking. I couldn't do a proper

job of milking cows if I did it once a month on ten or twelve cows, and you couldn't do a proper job of doing pregnancies if you did cows off and on as they are bred, instead of doing dozens each day year round. Please note, I don't say I couldn't become a good milker or you couldn't do my job; it's just that both are specialties, arts more than sciences, and like all artists (isn't a good milker an artist?) the milker and the veterinarian must practice constantly.

There are dozens of other ways to cut your "disease bill." For example, vaccination and immunization against disease you know you can expect, keeping offspring only from animals with good health and breeding records, elim-

inating chronic lame cows and chronic disease cows from the herd, good simple record-keeping, nighttime barn checks, proper nutrition and consulting a nutritionist when necessary, proper housing, picking up junk to remove hazards, parasite and fly control, keeping purchased additions to a minimum, and keeping potential disease-carrying persons out of feed alleys (including yourself when you have just been to an auction).

You who are good managers and are farming at a profit practice most of these now. None of us does everything to make the most of our business, whether farming or veterinary practice. The harder you try, however, the harder your veterinarian will try, too.

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"Remember when Social Security meant a Saturday night bath?"



Gayway Farm Notes

by HAROLD HAWLEY
Weedsport, New York

ECONOMICS IN PRACTICE

Economists have long explanations and precise formulae to tell how many sales of an item can be made at a given price. All this meeting of supply and demand

curves is correct enough but let me recite how an actual sale is really made. And note — no salesman present, no order booked, no cash register ringing.

It was at the New York Expo in the machinery building. The

case included a farmer, his wife, and their 12 or 13-year-old son. The merchandise in question: a new baler with a bale thrower. The man was explaining how the bale thrower worked; how this would do away with the need for picking the bales up from the ground and loading them on a wagon.

She understood the workings of the machine and certainly was impressed with the labor savings it made possible. Still she hadn't committed herself. Came the punch line — the clincher. Said he, "With one of these things so I didn't have to handle all that hay, maybe we would be able to get through hay-ing without getting so tired out

and we certainly would enjoy our Sundays more."

Said she, "I think we should swap for one of these." Now that's how a sale really is made!

One of the most enjoyable 60 seconds I spent at the Expo this year came in the Coliseum at the beginning of the heavy weight horse pulling contest. It wasn't when those wonderful, big pairs tightened up the leather and dug in, thrilling though that was. It was right at the beginning as they drove the teams into the Coliseum. An elated and excited 3-year-old shrilly told her mother, "Look, there's Daddy's team — look, there's Daddy's team." Right off I knew that with support and confidence like that behind him that "Daddy" and his teams were going to be hard to beat so I "pulled" with and for them but "we" didn't quite have enough of what it takes.

PUBLIC RELATIONS

Many people in agriculture spend time in various ways to promote better understanding and relations between farm and non-farm people. This is fine and a much-needed effort. We recently saw another kind of public relations effort and product promotion which would seem to merit special mention.

Admittedly most folks know less about maple syrup production than about many other farm products so perhaps a special effort to acquaint the public is needed. At any rate, Farview Sugar House at Stamford, New York is doing a truly excellent job of telling the maple story.

They have a small museum collection in their sales room, plus a film showing the operation of their maple business and perhaps even more important, an obvious pleasure in meeting people and telling their story. We thoroughly enjoyed our stop there and learned a good deal. Regardless of the product we produce, we would be happier and more prosperous if we had the public relations know-how that was exhibited there!

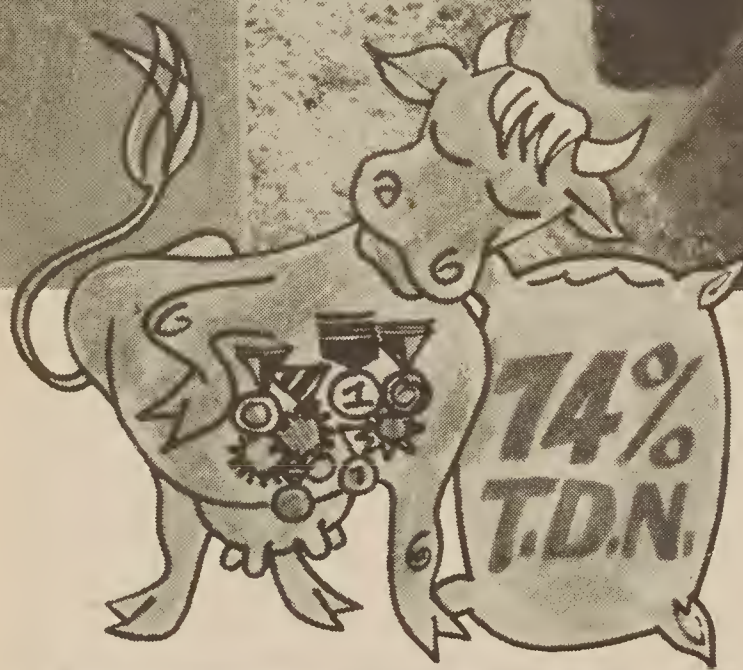
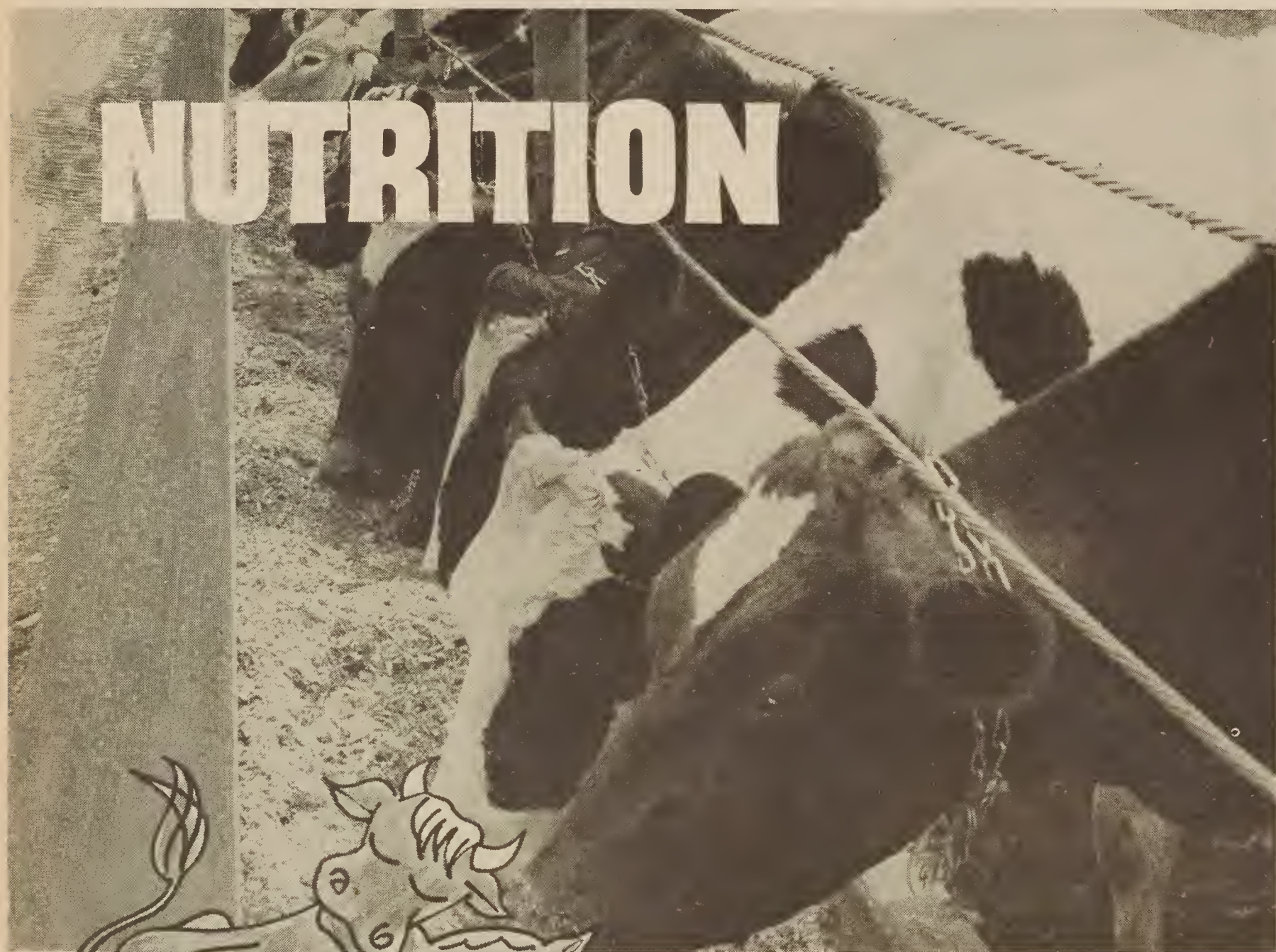
SAFETY

From the roadside it seems as though a lot of the hollering about automobile safety and the need for laws governing construction details has been a little overdone. Sure, we want the safest equipment possible but the approach to this hasn't seemed to be the best.

Car safety still seems to be closely linked to the nut behind the wheel and no one has suggested what to do about him.

When it comes to farm safety, there are at least a few obvious ways to cut down the risks. One thing that always shakes me is to see a farm tractor carrying more than the driver. It's just asking for serious trouble to let passengers ride on the drawbar or, even worse, on the fenders. To let kids ride along is to do them no favor . . . as the grim statistics show. Yet it's commonplace to see these fine

(Continued on next page)



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farm youngsters merrily riding on this most dangerous perch. I've personally been glad to do away with belts replaced by P.T.O shafts to drive blowers. I'll not soon forget how close a belt came to getting me years ago.

I was feeding a threshing machine when someone noticed the tractor was afire. The threshing machine was on the barn floor with the usual accumulation of bundles and straw around the table and belt. It was too hot around the tractor to shut it off or to "unchock" the wheels to remove the belt which was surely going to carry fire to the straw in the barn.

Eager to save the barn, I threw a coat through the belt, then grabbed both ends of the coat and yanked against the belt to pull it off the pulleys. It would have worked, I suppose, had not a belt fastener caught the coat.

Before I knew what hit me I was thrown forward and almost knocked the feeding table down when I crashed into it. Well, pretty lucky to get by with just some cuts and bruises and the longest pair of arms in history! This bit of rashness seems so typical of what happens in various ways all too often in agriculture.

Industry long since has covered belts, put shields on grinders, put chain gloves on knife workers, etc., etc. But on our farms we are free to take as many foolish risks as we want to.

It's certainly beyond my poor powers to come up with a proper slogan for all to remember every time there is a temptation to do something which might produce a widow or a cripple. Statistics prove, though, how badly we need to become more safety conscious. If any of you folks have a real apt slogan which would serve to remind us all to be careful, don't hide your light under a bushel. Send it along and we'll be happy to tell others. My address is Weedsport, New York.

POOR MILES STANDISH

At this time of year I frequently think of the old Puritan soldier who lost his gal because he was willing to let someone else handle the important job of proposing for him. It sometimes seems that there are a lot of farmers who are like Miles Standish.

When annual meeting time for their co-ops or general farm organization rolls around and policy is being made, like Miles Standish, they are willing to let someone else handle the really important job of attending the meeting and helping to formulate policy. Unlike old Miles, however, who didn't get to live with the gal he didn't propose to these farmers will have to live with the policies they didn't help formulate!

SHED ROOFS

Would you believe forage wagons with shed roofs? That's about what we've ended up with. The wagons had no roofs when we bought them. On windy days there

was just too much loss of haylage over the sides and out the back. A flat roof over the whole affair pretty well stopped stuff from blowing out, but the roof was so low in front that we couldn't blow feed clear to the back of the wagon.

The obvious answer was to raise the roof in front. To do this we put twenty inch extensions on the ends of the pieces of metal which forms the top brace. The extensions raised the roof at the front end, but the back end was unchanged.

This, of course, left a triangular hole on each side of the wagon between the original sides and the new roof. These we filled with steel roofing. An unexpected advantage of the sloping roof is that silage

doesn't collect on it which would have caused it to sag and break.

These shed roofed wagons aren't "a thing of beauty and a joy forever" but are much more serviceable. We can load them heavier and with almost no loss. The roof even protects the wagon when setting out in the weather.

Dates to Remember

Nov. 7-11 - Pennsylvania Livestock Exposition, Farm Show Building, Harrisburg.

Nov. 8-10 - 28th Annual New York State Insecticide & Fungicide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y.

Nov. 9-10 - New York DHIC Annual Meeting, Binghamton.

Nov. 14-16 - New York Farm Bureau Annual Meeting, Hotel Syracuse, Syracuse.

Nov. 18-24 - National Farm-City Week.

Nov. 19 - New York Hereford Assoc. Annual Meeting, Syracuse, N.Y.

Nov. 19 - Sheep Producers Day, University of Connecticut, Storrs.

Dec. 4-8 - National Jr. Horticultural Assoc. 32nd annual convention, St. Louis, Mo.

Dec. 5-6 - 28th Cornell Seed Conference, Sheraton Motor Inn, Ithaca, N.Y.

CALF SAVER:



Use powerful Sulfastrep boluses to help save scouring calves. Better yet, use them to prevent scours from striking.

SULFASTREP® contains 4 ingredients that work fast to help bring scouring calves back to health. SULFASTREP can also help prevent bacterial scours from striking.

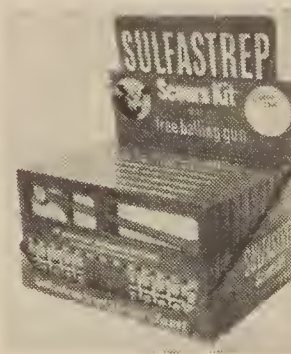
SULFATHALIDINE® works against bacteria buildup in the intestines. STREPTOMYCIN works against the "gram-negative" organisms frequently responsible for scours infections. SULFAMETHAZINE works in the bloodstream against secondary infections, such as pneumonia. And the KAOLIN in SULFASTREP helps protect intestines against bacterial poisons.



Use SULFASTREP to fight bacterial scours. And to prevent scours from striking in the first place, give newborn calves 3 boluses the first day, 2 boluses the second. (See directions on package.)

Get SULFASTREP where you buy animal health supplies. Look for the displays at left. SULFASTREP comes in handy 5-bolus blister packs, cartons of 20 and 50, and in a 25-bolus pack with free balling gun.

IMPORTANT: Get bonus premiums at low cost when you buy SULFASTREP. See below.



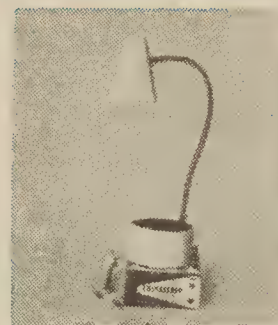
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The end flap from any SULFASTREP package entitles you to your choice of these outstanding, quality values.

Here's how to use coupon to get your bonus premium. (1) Clip and fill out coupon. Please print. (2) Attach end flap (carries the number 55501) from any SULFASTREP package. (3) Attach check or money order made out to: TRAVELLERS PREMIUM CO. (4) Send to MERCK BONUS, TRAVELLERS PREMIUM CO., BOX 319, NEW YORK, N. Y. 10046. (NOTE: Allow 3 weeks for delivery. This offer expires Dec. 31, 1966. Offer void in any jurisdiction where prohibited or restricted.)



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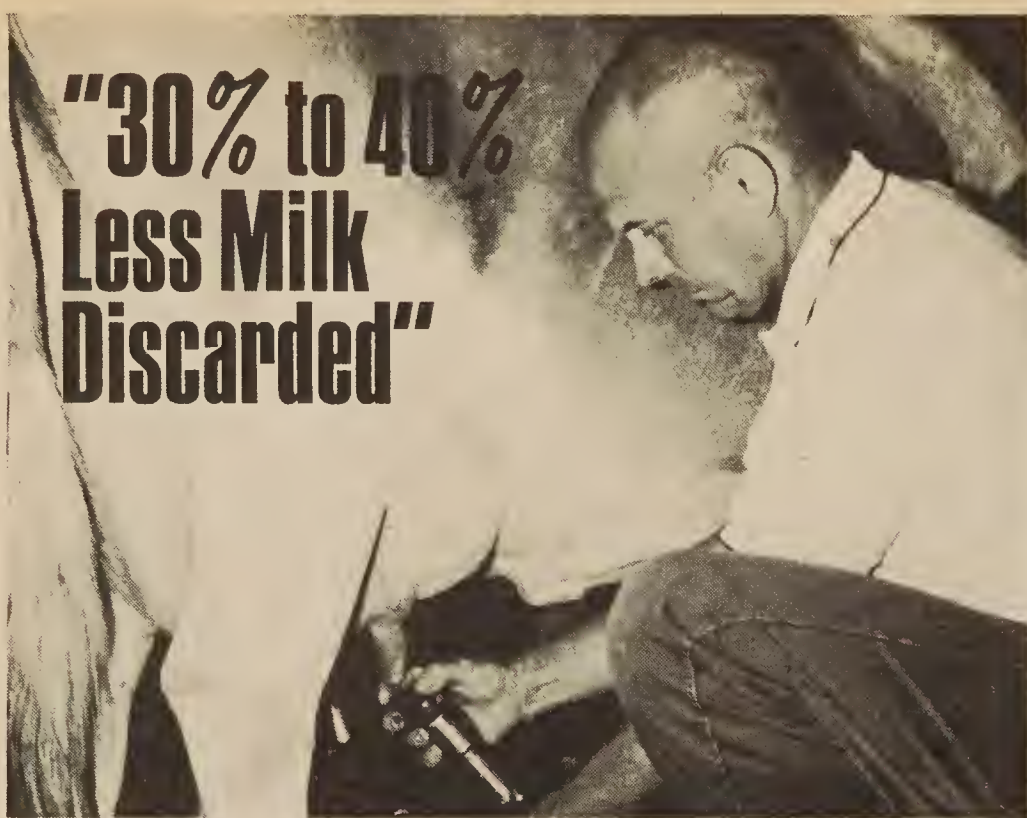
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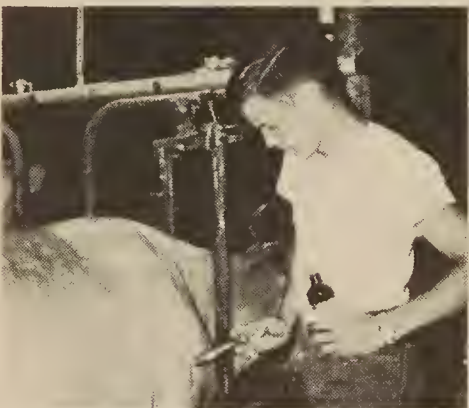
Charles and Dick Whicker who operate a 70-head dairy herd near Danville, Indiana, are on the Anchor Somato-Staph vaccination program all the way. Charles Whicker, shown placing the milking machine on a healthy udder, says: "Profits are important in our operation. We need to keep our cattle as free of mastitis as possible and that's why we went on a vaccination program with Somato-Staph. Even though mastitis was never a major problem in our herd, we feel that our incidence of flare ups that caused discarding of milk, is 30% to 40% less."

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Dick Whicker is administering a shot of Somato-Staph in the shoulder. Says Dick—"It's as easy to give as a shot of penicillin; yet you don't need to discard any milk."

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Bill Boyd (left) checks the plant population in his field of Harosoy 63 soybeans with Bill Brown, Seneca County Extension Agent, and Larry Davis, Ontario County Extension Agent.

MORE SOYBEANS IN N. Y.?

by Bob Cudworth

SHOULD SOYBEANS play a bigger part in New York agriculture... either as a cash crop, or as a source of protein for dairy farms?

Some ag specialists feel that New York dairymen must grow more of their own protein, and that soybeans could help fill part of that need... ground directly into the ration or as a nearby source of soybean oil meal. Others feel that the increasing market for soybeans, both at home and abroad, makes it a worthwhile cash crop.

Bigger Crop

Nationally, the government is hoping for a crop of more than 900 million bushels in 1966... as compared to last year's 844 million bushels.

Japan... where the soybean is second only to rice as a staple food... has committed itself for 65 million bushels of the 1966 U.S. crop. Within 10 years it is expected Japan will take 150 million bushels per year.

More soybeans are being sent each year to plants in European and Near Eastern countries, where the beans are crushed. The oil is used for human consumption and the meal for ever-increasing animal industries. At home, the big market for soybean oils to produce oleo, new-textured soy foods, plastics, and other industrial products is constantly on the rise.

New York Acreage

Some 20,000 New York acres were planted to soybeans in both 1939 and 1940, but acreage today has dwindled to around 5,000 annually.

There are several reasons for this decline. Foremost has been a lack of high-yielding varieties that will mature. Drought, early frost, and lack of weed control are other reasons given by farmers as to why they discontinued soybeans. The coming of World War II, and emphasis on foodstuffs, also cut down on soybean acreage.

In New Jersey, however, soybeans have become a major crop with an average value of \$2½

million. Varieties have been developed which do a good job in the Garden State. In fact, the net profit from soybeans at the State average yield of 23.4 bushels per acre rivals that of corn at 70 bushels per acre.

Since new seed varieties, chemical weed killers, and improved harvesting machinery have been developed in recent years, Cornell's College of Agriculture has been re-investigating soybeans... principally as a grain crop. This crop is not usually considered profitable for hay or silage as it once was used.

In 1963 Dr. Harry MacDonald at Cornell started a wide-scale study of several protein crops... soybeans, sunflower, rape, mustard, flax and others... to determine their suitability in New York. Some 85 strains and varieties of soybeans are being studied in various parts of the State.

Dr. McDonald feels that dairymen must grow more of their own protein in order to reduce their feeding costs. He points out that some 300,000 tons of protein supplement are brought into New York from the Corn Belt states in one year. This represents about 13 million bushels of soybeans from 500,000 acres. Annual cost to livestock farmers is more than \$27 million.

One big problem is that there is no soybean processing plant in New York State, so there is no local supply of soybean oil meal. At one time there was a soybean processing plant in Oswego, but it was abandoned in the Forties.

Seneca County grows more soybeans than any other county in New York State. Bill Brown, county agricultural agent, points out that studies were started there five or six years ago to determine the pattern of production... why some farmers were in and out of soybean production... what practices could be improved.

He sums up the main problems as being (1) varieties that would not mature; (2) lack of lime (pH often down to 4.5 or 5 when it

(Continued on page 12)

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Fast, Easy, Low Cost Snow Removal

There's never been anything like the ARPS ROTO-FLAIL SNOW BLOWER for fast removal of snow from farm driveways, barnyards and other areas... earn extra money handling other jobs. Converts any farm tractor having a 3-point hitch (or AC Snap Coupler and IH Fast Hitch) to a big capacity snow fighter that will clear a 6½' path in one pass through any snowfall... fluffy, ice encrusted, or slushy. Throws snow up to 50' away... swivel hood directs snow anywhere within 230° arc.



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Chuck Russell in his office.



At Russell Farms

VOLUME IS VALUABLE

by James Bodurtha

"YOU DON'T make money on anything until you move it in volume," says Chuck Russell about the apples, tomatoes, and corn at Russell Farms, Inc. in Niagara County, New York. "You make more on a truckload of tomatoes at \$1.50 per basket than on a partial load at \$2.00, for instance," the 41-year-old grower points out. And he leaves no doubt that 40,000 bushels of apples, 50 acres of tomatoes, and 10,000 or so bushels of corn annually constitute a volume instrumental to the success of his and his two brothers' 400-acre farm.

"Chuck Russell is a smart farmer-businessman," observes John Doll, manager of the Farm Credit Service associations at Lockport, New York. "He has built up this farm business very fast." Russell Farms had only 127 acres when Chuck took it over from his father after being discharged from the Army in 1947; today there is almost this much acreage in apple orchard alone.

No Hogs

The corn-hog ratio now at Russells is actually 100 acres to none. They discontinued hog production last fall after 15 years of having fed out some 600 hogs annually. Why... when hog returns have been so good? "We had a little disease, and wanted to interrupt production, at least for a while," Chuck explains. "We needed some new hog buildings, too." This year the corn will be sold rather than fed.

Corn culture here begins with plowing down 100 pounds of liquid nitrogen and 300 to 400 pounds of 10-20-20 fertilizer in the spring. The liquid nitrogen's purpose is primarily to speed decay of old corn stalks. Little further seedbed preparation follows the plowing-clodbusting operation. Then comes application of some 200 pounds more of 10-20-20 at planting. "Never more than 250 pounds," Chuck stresses. Thereafter the only attention to the corn during the growing season is one cultivation.

Meanwhile, the corn is sprayed with Amitrol-T, and/or Atrazine to control weeds. The choice depends on whether or not... or how soon... tomatoes are to fol-

low corn on the land. The normal rotation is three years of corn, then one or two of tomatoes. There is, however, some continuous corn, and on this land no Atrazine is used.

Chuck figures that it takes about three years for a full treatment of Atrazine to decompose sufficiently to secure land for tomatoes. If quackgrass is a problem, he uses four pounds of Atrazine per acre where tomatoes will not soon be planted. If tomatoes are planned, he reduces the Atrazine to two pounds per acre, and supplements it with Amitrol. He's confident he can eradicate quackgrass from land by using sufficient chemicals, at a cost of \$10 to \$12 per acre. He obtains what he terms "satisfactory commercial control" of quackgrass at a cost of about \$6.00 per acre annually, with the necessity of treatment each year.

Narrower Corn Rows

While Chuck Russell continues corn in 38-inch rows, he plans soon to go to 30-inch. "The change will cost \$3,000 in new equipment," he figures. But he tried the closer spacing on a five-acre plot last year and "it worked out real good." In 30-inch rows, he increases kernel drop distance to about 10 inches; in 38-inch rows, the spacing is 6½ to 7 inches. The Russells aim for 20,000 to 25,000 plants per acre. Chuck sees as one of the big advantages in narrower rows the quicker shading which plants give to the soil.

Twenty-inch rows? "No," he advises... "we don't have enough rainfall for 20-inch corn." His varieties have been Cornell M-3 and DeKalb hybrids. The seed is treated with captan and dieldrin to help prevent damage from disease and insects such as wireworms and maggot. Russells' corn harvest has been performed by a custom operator with a four-row picking-shelling combine. After supplemental drying, the corn is stored in metal bins.

"One of the big problems in corn production is to get it to stand up under all conditions," Chuck says. Irrigation helps, he acknowledges, and so does drainage. The Russells have placed 10 miles of soil drainage tile in the

(Continued on page 21)

Q: Why

should a man plan a crop program five months before he sets foot on a spring field?

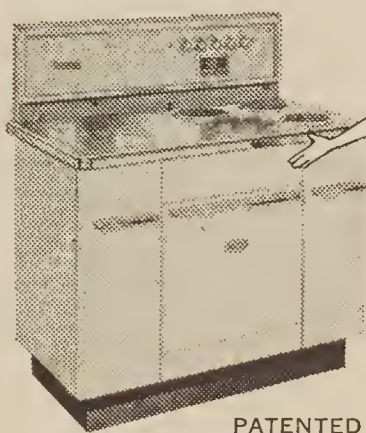
A: Money.

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Soybeans

(Continued from page 10)

should be 6 or 6.5); (3) faulty planting methods; (4) seed often old; (5) no weed control.

Another big problem has been fertility. Oftentimes the worst ground is put into soybeans and the placement of fertilizer has been faulty. Fertilizer must not come in contact with the seed . . . should be two inches to the side and two inches below the seed. Nor should soybeans follow corn on which a heavy application of Atrazine was made the year before.

Quite a few extra acres in Seneca County were planted to soybeans this year. Bill Brown feels some farmers were not able to plant

oats early enough this year and so planted soybeans instead. On some commercial crop farms, soybeans were planted as an alternative crop.

One field that was watched with great interest was that of Bill Boyd, on Old State Road, Phelps. A native of Indiana, he planted five acres to Harosoy 63 which he hopes to have certified for seed. If so, it will be the first of this strain grown in the State to be certified. The Harosoy variety was developed at the Dominion Agricultural Experiment Station in Harrow, Ontario, Canada.

Bill Boyd chose Harosoy because it is an early-maturing variety (110 to 120 days) which he hopes will produce between 35

and 40 bushels per acre for him. The State average yield is 17 per acre.

This particular field was planted May 28 and 29 with a corn planter in 36-inch rows. The soil pH was about 6.5, and 200 pounds of 5-20-20 fertilizer per acre were put on at planting time.

Lorox was used as a weed killer at time of planting. Seed, fertilizer and herbicide were all applied at one time.

The seed was inoculated with nitrogen-fixing bacteria (soybeans had not been grown on the ground before) and was treated with Arasan 50 Red. Soybeans are one of the few seeds not treated at point of origin because they are very

fragile and cracking reduces germination.

Bill Boyd pointed out that this field averaged 8 plants per foot and probably could well have been in 30-inch rows rather than 36-inch. He reports that soybeans can yield well on imperfectly-drained soils, and that his seedbed preparation was similar to that for corn.

At the end of July he had cultivated once and weeds were well controlled. Weed control is a must . . . soybeans are poor competitors with weeds.

Soybeans For Dairy Feed

At the other side of Seneca County, near Romulus, Harry Warne says he has raised soybeans for 30 years on his 700-acre crop and dairy farm. He and his nephew, Duane, sell some of their soybeans for seed, and use some for dairy feed.

The Warnes use about 150 pounds of soybeans in each ton of dairy ration which also includes a 40 percent protein supplement, ground corn and molasses. "We've always used soybeans in our dairy feeds, and have never had any trouble with palatability, or feed getting rancid. We don't keep our feed around for very long, though, . . . feed it right out," Harry said.

Dairy specialists at Cornell advise that ground soybeans may be fed safely to dairy cattle, but will become rancid upon long exposure to air, especially in hot weather. Soybeans are not recommended in a ration that contains urea because they contain an enzyme which destroys urea.

"We planted two varieties of soybeans this year," said Harry, "Harosoy and later-maturing Clark. We planted them solid with a drill and put on Lorox as a weed killer. We like this system best because we feel we get better yields, don't have to cultivate, find the beans don't pod as close to the ground and so we can combine them better."

The Warnes put on 250 pounds of 8-16-18 fertilizer at time of planting, last week in May. The seed had been treated with Arasan 50 Red.

"Our past yields have varied from 5 bushels to 40 bushels per acre depending on the rainfall and kind of year we've had," admits Harry. "But we like soybeans because they fit in well with our work schedule and our feeding program."

Returns To Soybeans

Down in Chesterfield (Burlington County), New Jersey, Henry Bibus has 36 acres in soybeans . . . acres that were diverted from corn. He raised some soybeans 20 years ago but quit because of the weed problem. Chemical weed killers have helped to solve this drawback, so he resumed soybeans again in 1965 with 20 acres.

"I'd prefer to grow corn," says Henry, who averaged 105 bushels to the acre on 200 acres of corn last year. "I figure I can make more money with 100-bushel corn than I can with 35-bushel soybeans. But with the corn diversion

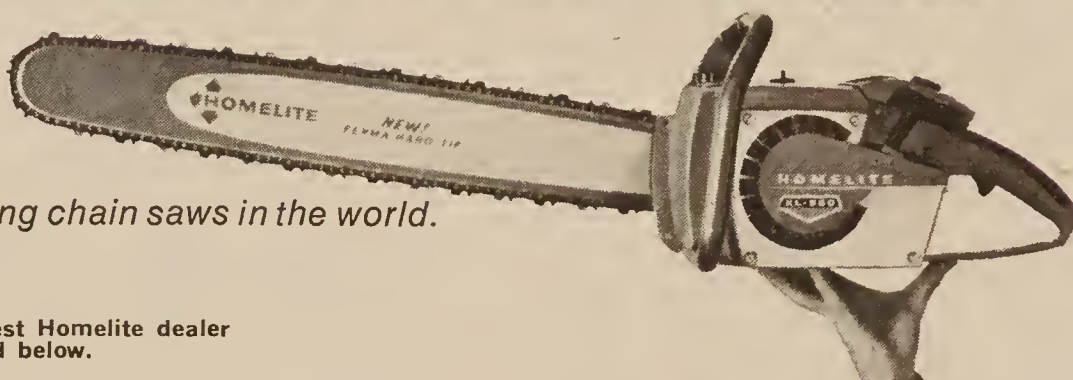
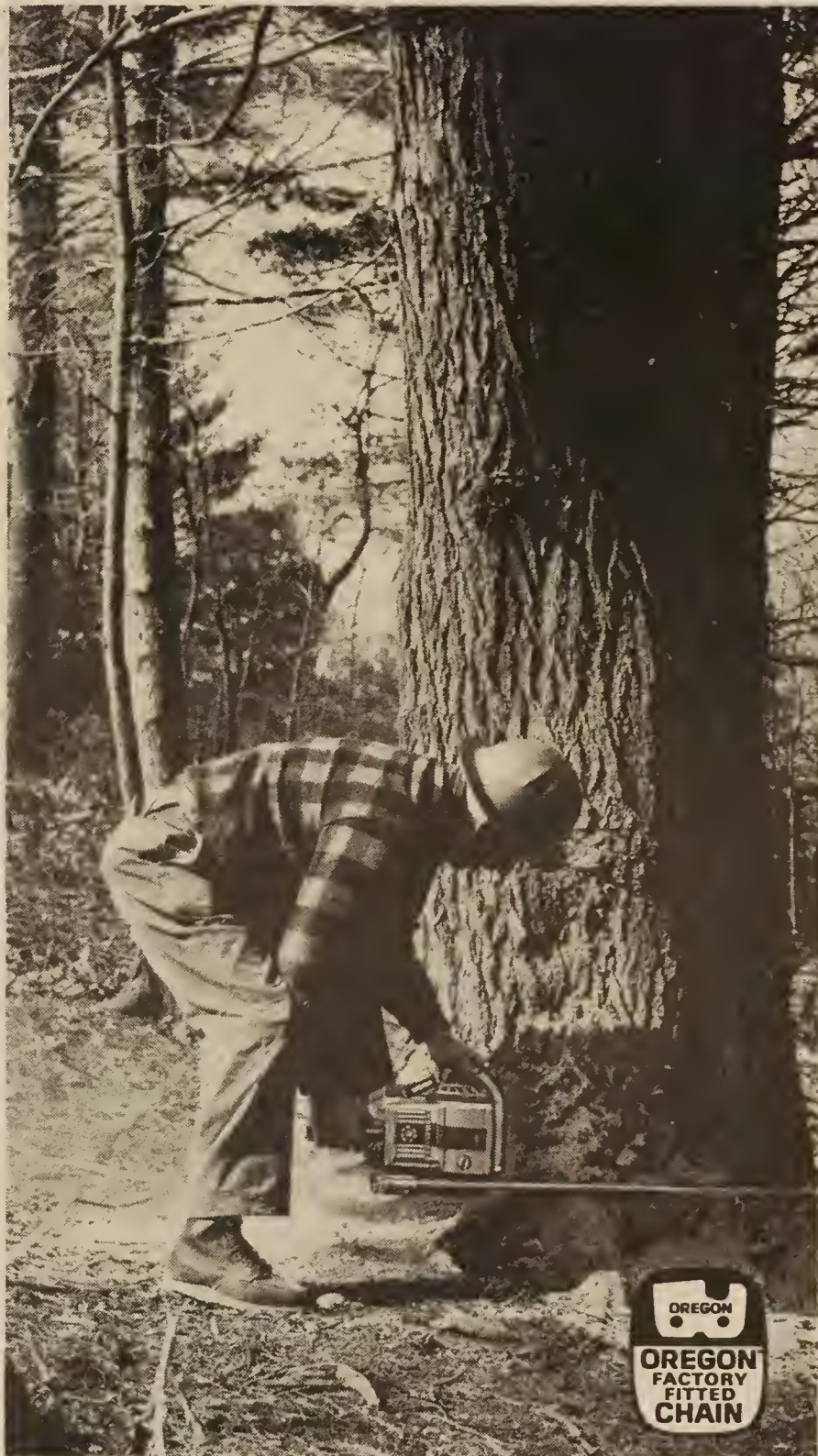
(Continued on next page)

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program in effect, soybeans make good sense."

He planted Adelpia seed at the rate of 70 lbs. per acre in 36-inch rows. Plant population was about 12 plants per foot in early August.

All the soybean ground tested at a pH of 6 or better, and much of it had been spread with blood from a nearby slaughter plant. Blood analyzes high in nitrogen, which is not as critical for soybeans as for some other crops, but it does provide some needed phosphorus and potash too.

Commercial fertilizer included 250 pounds of 10-20-20 in the row, while Lorox was used at the rate of 2 pounds per acre to kill weeds. The soybeans had been cultivated once by early August.

"Our best land doesn't always go to soybeans, nor do we worry too much about rotation. Soybeans can follow soybeans, the same as corn can follow corn.

"As for insects, they don't bother too much. Thrips probably are the main insect problem and they can be sprayed with Sevin if need be. One very noticeable pest is the groundhog. When plants reach about two inches in height, groundhog can take care of a lot of soybeans," pointed out Henry.

Optimistic

A little farther down Burlington County, at Moorestown, New Jersey, Jack Carson has 160 acres of soybeans under contract for seed. In addition to running Carson's Homestead Farm, he is considered the largest seed producer-dealer in New Jersey.

Soybeans have been grown on this farm for more than 20 years, and he feels the soybean market looks most promising for the next 5 to 10 years.

He points out that many shiploads of whole beans are going from East Coast ports to Europe, where they are processed. At the same time soybeans are going to Japan and other countries of the East at an ever-increasing rate, where they are becoming a food staple. Beans with a light eye... like the Harosoy and Adelpia... are preferred for eating.

Jack says: "Soybeans cost less to grow than corn, and we feel we can make a profit on soybeans that yield 25 bushels to the acre. The best yield we ever had was last year with Adelpia... 45 bushels to the acre. Before that our best yield had been 37 bushels to the acre.

"Adelpia is an awfully good soybean that might work well in parts of New York State. It has good disease resistance... good habits... doesn't shatter.

"We have five soybean varieties maturities that we use. Kent is a long-season variety that must be planted before Memorial Day if it is to mature before frost. Clark can be planted up to the middle of June and still mature. Adelpia, a bit longer season, can be planted June 8 to 20th. Hawkeye... end of June or early July. Harosoy is the fastest-maturing, and can go in as late as August 1 if you get some moisture.

"We've found that lime is awful-

ly important, even more important than fertilizer if it comes to a choice. They'll do better on a pH of 6.5, instead of 6. Soybeans really like it sweet.

"On good fertile soil, heavy fertilization doesn't seem to help appreciably. In fact, where we have fertilized heavily for other crops it doesn't seem to pay to put extra fertilizer on soybeans. Where we grow soybeans a second year, we put on 200 to 300 pounds of 5-20-20 per acre.

"We inoculate the seed, but seed isn't treated with an insecticide or fungicide in New Jersey. It seems to have no added benefit if you've already taken the precaution of using certified seed, and too much treatment hurts the germination.

"This year we have 70 acres of soybeans in 14-inch rows. We plugged every other hole in the drill with a commercial plug to give us the 14-inch spacing. With 90 pounds of seed per acre, that gives us good plant population... about 8 per foot. We also pre-treated for weeds with Treflan. We're trying to find a way to grow soybeans without cultivation, as a cost cutter.

"The rest of our soybeans are in 21-inch and 28-inch rows. We believe in nothing wider than 28. These fields will all be cultivated at least three times, and most were banded with Lorox.

"Beans will stand lots of dry weather, but this year the extreme heat and drought has hurt many

of the fields... the early ones worse than the mid-season varieties," reports Jack.

So the question remains... can soybeans become a good crop for more New York farmers?

Dealers in Seneca Falls and Canandaigua say there is always a market for soybeans, either for seed or export, but that farmers have not been happy in the past with their production.

Two things seem clear. Farmers need varieties that will mature and yield well in their area. They must also use the care and good land they would for corn and other crops if they are to make soybeans a profitable crop to grow.

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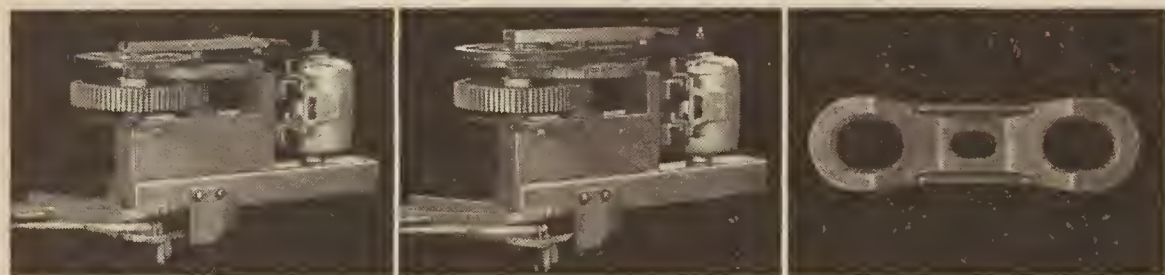
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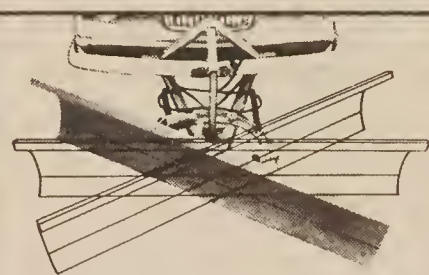
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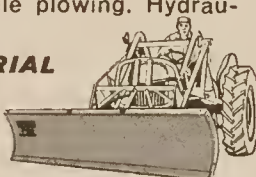


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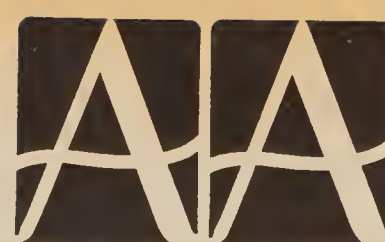
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FARM DOLLAR GUIDE

TIGHT CREDIT is much in the news, including farm credit. Recent visit with farm credit banker indicates credit will be adequate, but that borrowers will be checked carefully and more requests turned down than in the past. More credit will be wanted by some farmers who wish to expand to meet increased demand for food. It's a good time to take stock of your credit needs for 1967 and to make arrangements early.

SMART APPLE AND PEACH GROWERS are checking for possible mouse damage and taking steps to prevent it.

POULTRYMEN may be able to cut the cost of raising laying hens by feeding them a ration with less protein than normal from 8 to 20 weeks of age. In a five-year study at Beltsville, Maryland, R. J. Lillie and C. A. Denton found that chickens fed a low protein diet (12 percent) from 8 to 20 weeks of age grew as well as those on the "normal" protein ration (16 percent). Both groups had about the same death rate.

SOME BEEF CATTLE in the Midwest are being fed corn silage with ears added and chopped from an equal acreage, plus 10 pounds of urea, 10 pounds of ground limestone, and 20 pounds of dicalcium phosphate added to every ton. In Nebraska milking cows were fed a silage made of half alfalfa and half cracked corn (the corn computed on a dry matter basis). This proved to be a very satisfactory ration for cows in early lactation.

DON'T FORGET that rats cost you money! Relatively new poisons are effective, but not unless you use them.

QUACKGRASS CONTROL (on fields to be in corn for '67 and '68) recommended by Cornell specialists now calls for applying Atrazine five days prior to fall plowing, then hitting it again at planting time next spring with either Atrazine, Linuron, or 2,4-D amine.

STEER FUTURES contract trading began at Chicago on October 4. First contract-maturing month will be February, 1967. For more information, write Chicago Board of Trade, 141 W. Jackson Boulevard, Chicago, Illinois 60604.

The Song of the Lazy Farmer

This time of year I ain't worth much for helping with the chores and such. When I smell fall upon the breeze and frost has colored up the trees, when

squirrels scold and ducks fly o'er, I just don't like to work no more. It's simply too doggone much fun to clean and load up my old gun, then hike out through the pasture gate and roam around from morn 'til late. It's good to be alone out there where I don't have a single care; it doesn't even bother me if I don't hit a thing, by gee, there ain't no pleasure quite the same as matching wits with birds or game.

Of course, Mirandy raises hob as soon as I begin the job of fixing up my gun each year, what she says isn't fit to hear. She says it is a foolish stunt, that no one really likes to hunt; she worries first about the birds, and then when I ignore her words, she turns on all her wifely charm and whimpers that she wants no harm to come to me through accident; but I am not a stupid gent, her strategy is plain as day, whatever she might have to say I know she's worried only 'bout the work of which I might get out.





BARLEY SUCCESS

by Amos Kirby
New Jersey editor

TSCHERMAK, a winter barley for the malting trade, has been given the green light. This fall finds Extension Agent Bob Gardner pushing for more than 1,000 acres in Southern Jersey.

In 1965, only 10,000 bushels were harvested in the State. This year over 30,000 bushels, and for 1967 the National Malting Company of Paterson is asking for 100,000 bushels.

Tschermak yields up to 80-90 bushels per acre, has plump kernels, and bushel weight is excellent. Price-wise it commands a premium. If it should happen not to find a malting market, it can still be sold at the going market price for feed grain.

It's sown in the fall which is unlike the spring barley for malting from the Midwest. It also acts as a cover crop, halts wind and water erosion and is already growing during the spring rush to plant other crops.

Looks like a coming crop for the South Jersey areas where soils and climate meet its requirements.

TOMATO HARVEST

Three of the leading mechanical tomato harvesting machines from California have been in operation in the South Jersey tomato belt. The Hume, the FMC and the Blackwelder have proven that they can do the job.

The problem has been to find a variety that will mature 80 percent of the fruit at one time. Getting to the moon looks easier than getting the tomato to change its habits. Rutgers, Campbell, Heinz and others are working and hoping.

This year's trials on yields are closely guarded. There may be a promising break-through when the results are announced, but they are playing it safe and want to be certain.

Direct Seeding

Will direct field seeding of tomatoes replace Southern plants? Some say "yes"; others with just as much emphasis say "no."

Southern plants allow growers to have the bulk of the crop harvested during August. Direct seeding means September harvesting, and some claim too much of a risk with fall weather. Those in favor of field seeding see plant populations of 15,000-20,000 per acre. That means there might be 20 tons per acre of tomatoes of marketable quality for the once-over harvester picking.

BUY CORN

From Sussex to Cape May, thousands of acres of corn intended for grain have ended up in silos on dairy farms. Drought cut corn yields that would have been 100

bushels down to 20-30; stalk growth was reduced by 50-60 percent. Dairymen who planted an acreage normally sufficient to fill silos found that they would be forage-starved before next spring... so they bought up untold acreages in an attempt to meet winter requirements.

Corn stalks, many barren, were sold by the ton or by the acre. Some were able to buy at \$7-8 per ton; some paid \$40 an acre... and others up to \$100 per acre where yields went 8-10 tons and included a fair amount of ears. County Agricultural Agent Ivan Crouse recommended moving in this direction if cost was around \$8-10 per ton in the silo.

For feed-short dairymen the recommendations for winter dairy feeding are: commercial mixtures \$65-70 per ton; hay \$45-50 and corn silage at \$8-10 per ton are on a reasonably sound comparable basis. Another recommendation has been brewer's grains at \$8-12 per ton... a promising material if available.

Many dairymen have assured themselves of 2-4 weeks of early pasture come next April by seeding a substantial acreage of ryegrass. It comes early in the spring and, if sown in early September, has provided late October and early November pasture when other grasses are not available.

TRAVELLING CORN

Marketing sweet corn has always been a fast moving operation, whether it was from Florida or New Jersey. Normally growers used to plan on overnight delivery to New York City from any point in New Jersey.

The overnight delivery still stands, but the markets have moved! This time it is Amsterdam, Holland.





Late in August, the New Jersey Agricultural Marketing Association's manager, Tom Moore, picked sweet corn on the farm of Joe Conte, Vincentown, and the following morning... 24 hours later... it was on display in Amsterdam. This was an experiment engineered by the American Farm Bureau.

KEEP OFF

A Morris County grower has a problem. The law says that he can use exploders to keep the deer and blackbirds out of his cornfield and he did. The Board of Health of Passaic Township thought otherwise and secured a court injunction to stop farmer Phillip Bardy from using the exploders.

Three years ago the Farm Bureau secured passage of a law that supersedes other state laws and local ordinances to permit the use of exploders.

What Is A "Strong" Wind?

Terms used in official forecasts	Miles per Hour	Wind effects observed on land	
Light	1-3	Calm; smoke rises vertically. Direction of wind shown by smoke drift but not by wind vanes.	
Moderate	13-18	Raises dust and loose paper. Small branches are moved.	
Strong	25-31	Large branches in motion; whistling heard in telegraph wires. Umbrella used with difficulty.	
Hurricane	75+	Rarely experienced; accom- panied by widespread damage.	

Whatever the wind, do "blow in" to your supplier for facts on best use of fertilizers and seeds on 40 acre fields or 40 square foot gardens. And plan your field work with WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

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Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Olean	WHDL	1450 kc.
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Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WOLF	1490 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.
Niagara Falls	WHLD	1270 kc.			

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HANDY STEP

A step built ahead of the tractor drive wheel is handy for the operator to get on and off, and for filling the gas tank. It is especially useful when hitched to a place on which to step and reach the tractor seat. This step of welded angle iron is easily taken off; it fastens with bolts through holes in the frame.

ROLLING POSTS

Electric fencing, gate panels, or wire rope can be fastened to these movable posts for lot or pasture fences. They are handy for use around the building where the lots may be paved, and for separating cattle into smaller lots. Concrete without reinforcing was poured around a 4 x 4 x 48-inch post set in the center of an old tire, and the concrete tamped. Plastic was laid underneath when the concrete was poured.



NON-SKID STEP

Expanded metal stapled to the stile not only makes a non-skid step but also provides a good foot scraper to clean shoes and boots.



QUICK FUNNEL

A cutaway plastic jug fitted over a short tight-fitting pipe in the spray barrel makes a convenient way to add spray material without spilling it.



GOOD BRACE

Welded channel irons were used to brace the rear end of this pickup truck. This made the use of end-gate rods unnecessary and reinforced the sides against spreading. A step of heavy flat iron was welded to the underside of the channel iron brace. This was drilled to take a hitch pin for pulling equipment.

**SPRAY IT ON...OR PAINT IT ON
YOU CAN'T BEAT**

Dr. Naylor's BLU-KOTE
for COW POX* • RINGWORM • TEAT SORES • GALL SORES

Dozens of uses for all farm animals... Blu-Kote is an antiseptic, protective wound dressing that combats both pus-producing bacteria and common fungus infections. Covers the wound with quick-drying, penetrating coating, dries up secretions, controls secondary infection.*

Easy to use—just paint it on or spray it on! Blu-Kote provides lasting antiseptic contact, promotes clean, rapid healing. Try it soon...

NEW SPRAY CAN

Top first aid treatment for minor surface wounds, hard-to-reach sores. Favorite container with hog, sheep and cattle ranchers... convenient to carry in saddle or car... easy to spot treated animals after application. 6 oz. spray can... \$1.30* at dealers or mailed postpaid.

DAUBER BOTTLE

Dauber works best for treating Cow Pox sores you can reach with it. Application for Ringworm around eyes and face of dairy animals is better controlled with dauber. 4 oz. dauber bottle... \$1.00 at dealers or mailed postpaid.

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Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name Preparation H®. At all drug counters.

Personal Farm Experience

MAKES MILK: HAS FUN

You often hear that it's impossible to hire good farm help, but I am lucky to have two of them! Jim Smith has been with me ten years, and Al Argo six years.

I aim to give them fair wages, good working and living conditions, a bonus based on milk production, and some overtime pay in rush season such as haying. This might have some effect on their willingness to stay. I work with them, but they are responsible... and I don't worry while I am away.

We have a sizable farm, with 72 milking cows that average around 15,000 lbs. of milk a cow. We don't raise replacements, but concentrate on milk production.

We have five children (3 boys and 2 girls) and they range in ages from 6 to 16. They get allowances (except the youngest), but they also get paid for work above their usual responsibilities.

We believe in having some fun as we go along. My wife and I bowl in the winter. I teach a Sunday School class, sing in the choir, and am active in farm organizations. — *Jack Zwert, Washingtonville, N.Y.*



Jack Zwert



David Davis of Mount Sinai has been spraying with parathion. In addition to the raincoat, he wears goggles while spraying.

QUALITY PEACHES

I started growing peaches in 1948, now have 65 acres, and hope to set another 10 acres. Peaches are my only crop.

Ninety-five percent of the crop is sold at our roadside stand, but I sell a few to other stands in the area. The stand is opened late in July, and we sell until October.

I am trying something new, the use of Simazine under the rows of trees to control weeds, leaving a strip of sod between rows, which will be mowed. I figure it will save labor and avoid dust and mud. There is some evidence, also, that Simazine actually stimulates growth.

We irrigate... in 1965 we put on water twice. After the Junedrop, the peaches are thinned to remove those that touch, and to get size. However, last year at one time I lost sales because customers said the peaches were too large! Most buyers look for size and color, and of course they appreciate quality.

We grow 13 varieties, ranging from early to late. I pulled out 6 acres of 4-year-old trees. The fruit was beautiful in appearance, but developed a bitter taste, and I couldn't afford to disappoint customers. — *David Davis, Mount Sinai, Long Island.*

John Talmage (left) and his father Nat look at some hot-house tomatoes.



HOTHOUSE TOMATOES

Back in 1926 when there was an embargo on Dutch bulbs, we grew daffodils and forced them in a greenhouse.

We wanted to make use of the greenhouse later in the spring, and tried raising hot-house tomatoes. They did quite well, and as we gradually got out of raising daf-

(Continued on page 28)

NEW! SUPER-POWERED LIGHTWEIGHT CHAIN SAWS

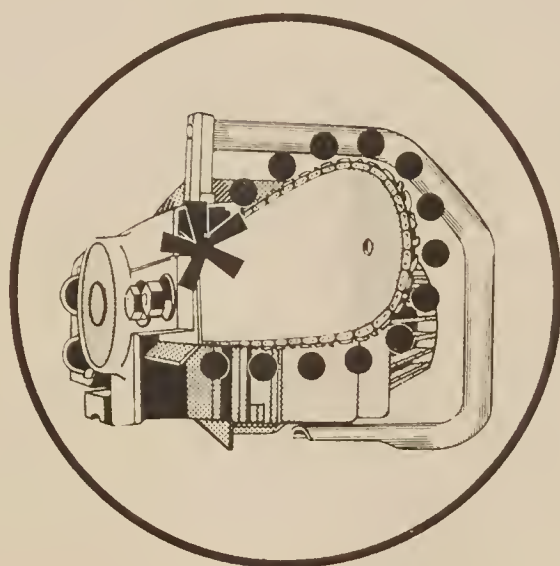
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Two New WILDCATS Built For Fast Action!

The all-new, super-powered PIONEER 11-20 adds more muscle to lightweight chain saws... while it reduces noise! The increased horsepower, plus perfect balance, lets you cut more wood, faster and easier, than any other 12 lb. chain saw. The revolutionary new muffler lets you do it with less noise. Built to professional standards by PIONEER... it's a real wildcat! For greater performance in a chain saw, try the quick, quiet, light AND powerful PIONEER 11-20.

Automatic Oiling

New dependable automatic oiling for longer chain life and friction free cutting is available on the Pioneer 11-50 model. Try both at your Pioneer dealers today!



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Whether you select one of the Funk's G-Hybrids that is already doing a great job in your area . . . or pick from the new ZEA III group, you're heading for one of the finest corn crops you've ever harvested.

Your profit potential goes up when you plant Funk's G-Hybrids. Time and again they have demonstrated they are "consistently good, year after year." And, there has been consistent improvement in their "capacity to produce." Today's Funk's G-Hybrids are second to none in their ability to make bigger corn crops on your farm.

For details, see the Hoffman Seed Man nearest you, or write for his name and address. Corn yields CAN go up on your farm in 1967.

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ALFALFA • CLOVER • OATS • FORAGE CROPS • HPS FORMULAS

EXCITING NEW HYBRIDS

★SINGLE★SPECIAL★4-WAY CROSSES

I Unmatched Yield Power

II Proven for Narrow Rows and High Populations

III Rugged Dependability

IIII Highest Quality Grain

Write today for the new Funk's-G folder, "The Most Advanced Group of Hybrids in History," or get a copy from your local Hoffman Seed Man.

New ZEA III varieties, added to a broad line of well-established regular Funk's G-Hybrids, enables Hoffman to offer every farmer a variety that meets his exact needs.

News and Views from NEW YORK AND PENNSYLVANIA

An Invitation — Rural young people . . . 4-H members, Vo. Ag. students, Young Cooperators, Grange Youth, and others . . . are invited to write 30-second radio announcements on the subject of farm and home safety. The project is sponsored by the New York State Rural Safety Council, and scripts can be sent in to Professor E. W. Foss, Department of Agricultural Engineering, Riley-Robb Hall, Cornell University, Ithaca, New York 14850.

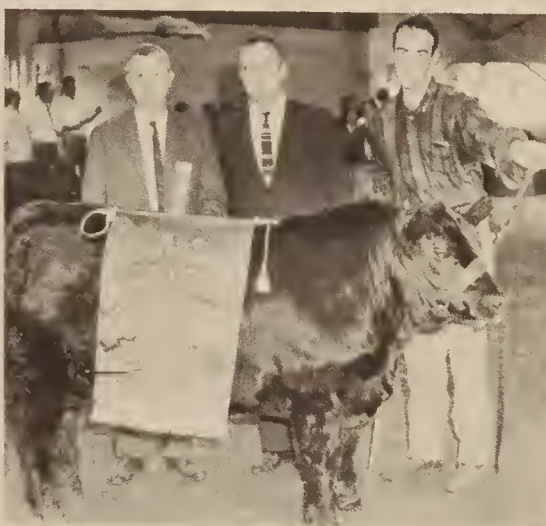
There is no limit to the number of entries, and you have until December 1. A 30-second radio spot announcement requires about 60 to 75 words, and the material should apply to safety on the farm, in the home, in recreation, or on the highway. Winners last year were Albert Rhodes (FFA) Dansville, New York; Joe Forkl (FFA) Holland, New York; Jo Ann Lurz, Henrietta, New York; and Gary Carlton (FFA) Salem, New York. Winners will receive a Savings Bond presented by the Governor at the Agricultural Society Annual Meeting in Albany in January of 1967.

Good Bulls — Three New York Holstein bulls have been designated as Gold Medal sires. They are: Carnation Royal Scorer, owned by Amory Houghton, Corning; Beacon R B I Jud, owned by Linehan Bros., Clifton Springs; and UNH Burke Ideal Graduate, owned by Eastern Artificial Insemination Coop., Inc., Ithaca.

A six-year-old bull owned by Richard J. Frederick, Martinsburg, Pennsylvania, won the Holstein grand championship . . . for the third year in a row . . . at the 1966 Pennsylvania All-American Dairy Show.

Star Dairy Farmer — Among the four outstanding students of vocational agriculture who have been named by the Future Farmers of America for the organization's regional Dairy Farming award for 1966 is Richard Eaton (19) Wil-

(Continued on page 26)



Grand champion steer of the open show in the 1966 Eastern States Exposition in West Springfield, Massachusetts, was this Angus shown by Jay W. Fought (at halter), Mechanicsburg, Pennsylvania. Shown with the champion are Curtis C. Mast (left) show judge, and A. W. Cowan, University of Connecticut.



TINGLEY

CAN HELP YOU CONTROL THE SPREAD OF ANIMAL DISEASES

Authorities warn that disease may be carried to your stock by friends' or visitors' footwear.

Editor Carroll Mitchell of National Hog Farmer wrote, "Don't permit any visitor, wearing his own chore overshoes to enter your lots, even if he is a good friend".

The University of Nebraska's eminent extension veterinarian, Dr. Crosby Howe, wrote us, "Your footwear combines good foot traction with a surface that is readily cleaned for disinfection. Too frequently we see people trying to disinfect surfaces that have not been thoroughly cleaned, thus causing a breakdown in disease prevention".

Molded in one piece of natural rubber or neoprene with no fabric lining, Tingley footwear is easily washed inside and out—dries immediately. Stretches on and off—each size fits 3 work shoe sizes. Lightweight, tough and rugged.

Keep a few pairs on hand for friends and visitors. Takes only a minute to disinfect them when guests have left.

At most shoe stores, department and farm stores.



10" Closure boots — \$5.99

Knee-Hi boots \$7.95

Hi-Top Work rubbers \$3.99

TINGLEY
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Do FALSE TEETH Rock, Slide or Slip?

FASTEETH, an improved powder to be sprinkled on upper or lower plates, holds false teeth more firmly in place. Do not slide, slip or rock. No gummy, gooey, pasty taste or feeling. **FASTEETH** is alkaline—does not sour. Checks "denture breath." Dentures that fit are essential to health. See your dentist regularly. Get **FASTEETH** at all drug counters.



MONEY FOR YOUR TREASURY Over 2 Million SUNFLOWER DISHCLOTHS

Were sold last year by members of societies, clubs, groups, etc. They enable you to earn money for your treasury and make friends for your organization.

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DEHORNING
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One application of Dr. Naylor's Dehorning Paste on horn button of calves, kids, lambs—and no horns will grow. No cutting, no bleeding. 4 oz. jar—\$1.00 at your dealer's, or mailed postpaid. H. W. NAYLOR CO., Morris 12, N.Y.

American Agriculturist, November, 1966

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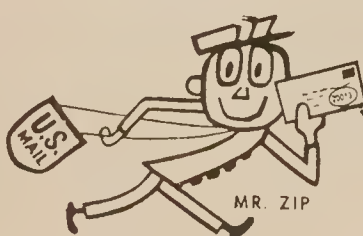
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... IS OUR NUMBER ...
PLEASE USE IT!

WHAT'S YOURS

FALL FEEDING

by Nenetzin R. White

OF ALL THE feedings that you give your plants, in my opinion, the fall one is the most important. This food will start down to the plant roots with the alternate thawing and freezing of the soil and be washed in by rains or melting snow. Thus, the food is available to the roots during the winter and in very early spring when the plant starts its initial growth. This fertilization will do more for your plants than any other one application of plant food, by being available at the time when the plant needs it most.

This doesn't necessarily mean that your fertilizing for the year is done with the fall feeding. You may have special circumstances that require additional or different feedings. Fall feeding can be likened to dormant spraying of plant materials. Spraying in early spring eradicates most eggs, scales, and many other problems, but you may also need additional applications for specialized control.

In the Northeast, fall feeding should be done in late October, November, or early December. If you feed earlier, there is the possibility that a few warm days could stimulate new growth. This, of course, is to be avoided, for the new growth wouldn't have time to harden off and would undoubtedly freeze back during the winter.

What And How Much

What to feed and how much? This is a difficult problem, but I will try to steer you in the right direction. Whenever possible, it is better to use organic plant foods, and with a little effort, I'm sure you'll be able to find them. Bone meal is organic and will suffice for one feeding for plants that fruit or flower. However, I like to apply

this during the early growing season, for it can be broadcast with no danger to the plants themselves.

A 10-10-5 formula (or 20-20-10) is a good one for fall feeding. I have also seen 18-16-8 used successfully. The first two elements — nitrogen and phosphorus — should be approximately even, with twice as much as the last one — potash.

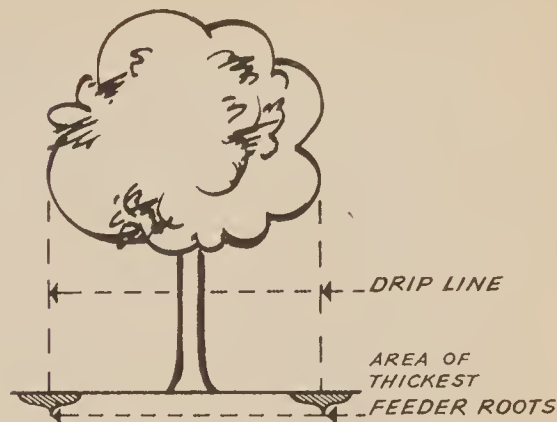
If you have to settle for a chemical or part-chemical fertilizer, use caution, for it can burn the foliage

or roots if it comes in direct contact with either. Use recommended amounts of the fertilizer you buy, as each can be different. Today, commercially, we are using pelletized organic fertilizers with very good results, but to my knowledge these are not on the market yet for the home gardener.

Large trees should be deep fed. This is accomplished by drilling holes 18 to 20 inches deep in circles a little way from the trunk to beyond the drip line, as shown by the shaded area in our sketch. Then fill the holes with fertilizer to within about 6 inches of the top.

It's a good idea to flood the filled holes with water after you have finished, to give some of the food a chance to move laterally in

the ground. And it isn't necessary to fill the holes with soil unless you object to the looks, for the sod will



usually fill them in rapidly. Besides, in our normal clay soils around here, the holes provide much-needed aeration.

Right now is the perfect time to do all your fall feeding!

A 10.8 dairy vitamin-mineral? How come Morton developed it?



There are 4 good reasons.

Under certain stress conditions, the phosphorus level and the calcium-to-phosphorus ratio becomes even more critical than under normal conditions for dairy animals. To maintain good health and productivity and help prevent "milk fever," a higher phosphorus content, a narrow calcium-to-phosphorus ratio and adequate supplies of Vitamins A and D are beneficial:

1. Before and during gestation.
2. During periods of large milk yields.

3. When feeding large quantities of hay or forage. (Its calcium content is high, phosphorus low.)

4. When feeding crops from soils containing high levels of calcium.

◆ New Morton 10.8 Dairy Vitamin-Mineral is specially formulated for these conditions. It has a narrow 1.3 to 1 calcium-to-phosphorus ratio. It also contains salt, 160,000 USP units of Vitamin A and 32,000 USP units of Vitamin D₃ per lb., and six vital trace ele-

ments in a balanced nutritional relationship to enhance feed conversion and milk production.

◆ Stability of vitamins is maintained through an exclusive waterproofing process developed by Morton Salt Company. This assures you that the vitamins you pay for are actually in the mixture.

◆ Morton 10.8 Dairy Vitamin-Mineral is easy to mix and provides one-package convenience. It proves again that Morton is more than salt; it's ideas in action.

ONE-ACT PLAYS!

Three Cheers For Woody
The New Hired Hand
The Riddle
Out of the Night
To Count Thirteen
Holloway's Hired Hand
The Electric Fence
Oh Doctor!
Christmas on the Farm
Henpecked

American Agriculturist plays are especially designed for rural and small town dramatic groups, school, and organizations. Plays are amusing, royalty free, and easy to produce.

To order plays, write to: American Agriculturist Play Dept., Box 370, Ithaca, New York. Enclose 50 cents for each play wanted. Send coins, money order or check. No stamps, please. Add 5 cents for complete list of plays, with brief description of each and number of persons in cast.

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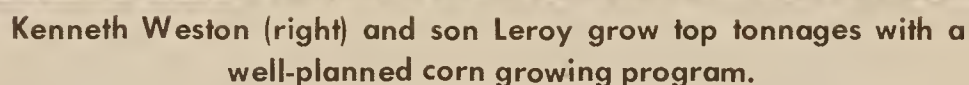
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North Country farmers are...

by Gordon Conklin

ONE THOUSAND new silos were built in New York State in '65, say specialists at Cornell University. Ralph Lydman, Extension agent in St. Lawrence County, estimates that 100 of these were erected in that county. No doubt about it, silage crops . . . especially corn . . . are grown more widely than ever in all parts of the Northeast.

Typical of North Country dairymen who have opened the corn silage throttle in recent years are Kenneth Weston and son Leroy, who farm near Potsdam, New York. They farm 265 acres, 170 tillable . . . and 70 acres of it in corn this year. Varieties are Pa. 290, Pride 5 (developed in Canada), and Funk G11A.

Planted Early

The Westons started corn seed rattling down the planter pipes on May 5 in '66 . . . before the last snowstorm in the area. A few neighbors laughed at such goings on, but the Westons laughed last! In spite of a year on the dry side, the crop grew remarkably well.

A liberal application of manure was made on all corn ground except 10 acres; 500 pounds of 10-10-10 went on with the planter. Plant populations figured out to 30,000 seeds planted per acre in rows 30 inches apart. The Westons recently bought a two-row chopper, by the way, that has to be handled pretty precisely to cut corn planted in 30-inch rows.

No Cultivation

Atrazine was applied . . . complete coverage . . . and no cultivating was done. "Weed control that is simple and effective is one of the major reasons we're expanding corn acreage," says Ken. "Before, we cultivated corn at least twice and it always had to be done at the same time we should have been haying." There were a few spots missed by the weed sprayer in '66 . . . where healthy-looking weeds

and spindly corn offered dramatic evidence of how weeds can out-compete corn plants for moisture.

The Westons look ahead to growing even larger acreages of corn . . . and following corn with corn for several years, something which they have only begun to do. In '63, a field check showed 24 tons of silage harvested per acre in one field of corn. With 64 cows now, plans for 75 to 80 milkers, and 131 head of cattle in all, there is no problem feeding up plenty of roughage!

The rest of their roughage program calls for growing no more oats, seeding instead in the spring without a nurse crop, and cutting for the first time in August or October of that same year. All existing hay fields (primarily alfalfa) are topdressed during the summer with 0-15-30 at 300 pounds per acre.

Near Heuvelton in the same county, Dale Putman grew 56 acres of corn this year, using 400 pounds per acre of 16-8-8 to get it off to a good start and keep it going. He grew the same three varieties as the Westons. No herbicide was used this year, and Dale admits this was a mistake. One cultivation helped, but weeds . . . particularly in the row . . . came on strong.

He would like enough corn silage to carry into the summer, likes it better than hay for summer feeding. In the winter, he feeds silage twice a day, tucks 40-45 pounds of it into each of his 70 milkers. His silo unloader transfers from one 18 x 45 silo to another; silage is fed in a bunk in this warm-barn free stall setup.

Dale feeds grain liberally, bringing the amount fed to milkers up gradually to as much as 20 pounds a day at 10 days to two weeks before freshening. He challenge feeds after calving, feeding as much as they'll eat and then going to the recommended amounts on a commercial feed chart, ac-

(Continued on next page)

(Continued on next page)

American Agriculturist, November, 1966

cording to milk production.

By contrast, Lloyd Flack of nearby Ogdensburg relies heavily on roughage feeding and a minimum of grain . . . never going over 16 pounds of grain per cow per day. He's growing 70 acres of corn in '66, uses haylage, corn silage, and hay as primary source of feed for his 70 milkers. During the winter, he feeds corn silage once a day and haylage once . . . would like to continue this year 'round, but so far hasn't had enough corn to carry through all summer.

Lloyd started planting corn this year on May 15, finished early in June. His varieties included Pride 5, Pride 132, Pa. 215, Funk G11A and a Pioneer variety. Corn ground was fertilized with manure, plus 400 pounds per acre of 16-8-8. Atrazine was used on a complete coverage basis . . . on one field applied during a rain where Lloyd wished he had cultivated later to incorporate the herbicide with the soil, instead of leaving it in a zone below the surface where it had leached quickly. Otherwise, though, no cultivation was required.

Rotovator

All corn ground was prepared by rotovator . . . over twice on sod, but only once on fields where corn followed corn. The 60-inch rotovator requires a 60 h.p. tractor . . . thumb rule is 1 h.p. needed per inch of width of this implement. Lloyd speaks highly of this tool, likes it better than conventional plowing and harrowing.

Corn was planted in rows 32 inches apart . . . to give 27,000 plants per acre. Lloyd "socked

'em in deep" this year with his four-row planter, placing seeds four inches below the surface.

As soon as grain on the cob is well dented, Lloyd moves in with his self-propelled chopper that chews off two rows at a time. This chopper, which also has a pickup head for haylage, teams up with a 12-foot self-propelled windrower as the only harvesting tools on this 430-acre farm.

The chopper has a series of recutter screens; Lloyd starts out with a coarse one (3 inches) and goes to finer ones as corn moves along the maturity scale. In the wet fall of '65, he chopped corn until December 25th, finally got all of it in the silo. He can raise

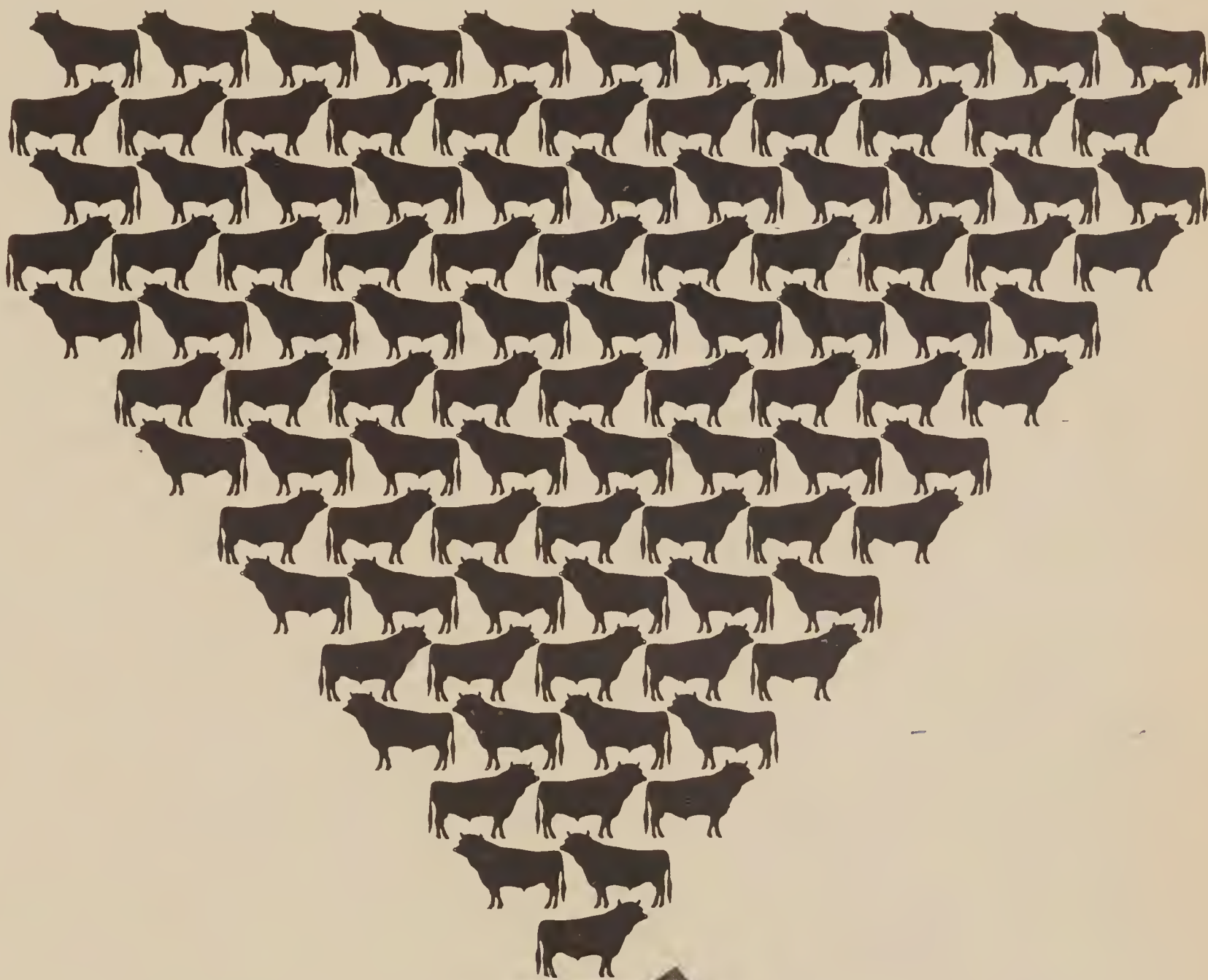
Saint Lawrence County Extension Agent Ralph Lydman (left) looks on as Lloyd Flack checks stage of maturity.



the chopper head high and put in "enriched silage" . . . more grain in proportion to stalk . . . if he sees he's going to be pinched for silo room.

More feed per acre, better tolerance to drought than hay crops, ease of weed control, mechanized handling from field to cow, a whole package of improved technology from seed to silo . . . all add up to increased corn acreage in much of the Northeast.

LISTEN HERE, IF YOU THINK FOR ONE MINUTE IT'S A BREEZE TO GET 480 BULLS INTO A \$350 BARN, YOU JUST OUGHT TO TRY IT SOMETIME.



Volume valuable

(Continued from page 11)

past nine years. Last year they dug 10,000 feet of trench, 56 acres were tiled.

"Tiled land is much better," Chuck claims. "It is not wet unless it rains, and you can get on tiled ground two weeks earlier in the spring." He figures the cost of tile drainage at 30 cents per foot. One field has tile lines every 75 feet. The value of drainage shows up not only in land management and productivity . . . it appears also in land values . . . Chuck places the value of local farm land at \$200 to \$300 per acre where tile-drained, \$125 where not.

Bookkeeper

Russell Farms Inc. is well managed as a business, and Chuck handles the bookkeeping himself. Recent conversion of a spare room to a very pleasant office has afforded him surroundings and facilities encouraging to careful maintenance and study of farm records. This "thinking time," he feels, is perhaps the most profitable time spent in all of farming.

Chuck has found time to hold many farm leadership positions in Western New York. Presently president of the Niagara-Orleans Production Credit Association, with offices at Lockport, he is also a member of the Federal Land Bank Association at Lockport.

American Agriculturist, November, 1966

Go ahead and try it. Just you see for yourself if it is possible to get 480 ampules into the LR-31 refrigerator.

Isn't that amazing! All 480 of them fit in fine. Like bulls in a barn, you might say.

Well, it's no accident. Because that's what the Linde LR-31 refrigerator was designed for. In this one compact container, you can safely store semen from ABS bulls up to 60 days before it's time to call ABS for a nitrogen refill. When your cows are ready, the semen's right there. Just the thing to save you time and trouble, especially if your's is a large operation. And



because of the LR-31's 480-ampule capacity, you can stock a sufficient supply from one or several ABS bulls . . . bulls you selected to do a specific job to improve your herd.

Take advantage of this new and convenient method for large-scale breeding. Your ABS representative can give you complete details. Or if you prefer, write direct.

By the way, there's another advantage to our 480-bull, \$350 barn: no cleaning. Life gets easier every day, doesn't it? American Breeders Service, Inc., De Forest, Wisconsin 53532.





MORE "PARENTING"

Enough has been published concerning the misdeeds of the minority of our teen-age population. I would like to say a few words in behalf of the majority.

During the twenty years our family has lived in the rural area

of this community, we have been privileged to know a large number of young people of all ages. Over this period of time, these youngsters have, during all seasons, helped in every conceivable way with any kind of work done on this farm. Never has one of them ever asked for payment of any kind. And, through the years, only one has betrayed our trust in him. A truly remarkable record, considering the number of young folks we have known.

Now, at the end of this twenty-year period, I should like to repay these fine young people by making an appeal to the hearts and intellects of the parents and all adults of New England.

We are letting our teen-agers

down. There is a desperate need in this country today for some old fashioned "Parenting." In order to fulfill our obligations to them, it might help to keep in mind a fact quoted to me by a pediatrician, who explained, "Adolescence is that period of life when a youngster has his feet spaced widely apart with each firmly planted on a banana peel . . . one foot slipping toward childhood and the other slipping toward adulthood."

It is true that the youth of today have many of the material things of life and many civic and social organizations are formed for their benefit. Such organizations are fine and serve a good purpose for a minority, but what about the majority of our youth? Organizations

can never, nor should they, replace parents. Of prime importance in the lives of our adolescent youngsters is the need for love, understanding, tolerance, companionship and, yes, two extremely important features . . . discipline and truly receptive ears to their problems and interests.

Farm parents have the ideal opportunity for living up to their obligations as parents, for to be a successful farm family the cooperation of each member of the family is necessary. To be a successful and happy family exactly the same things are necessary . . . complete cooperation; therefore, both purposes can be served at the same time.

It is my sincere hope that your magazine will print a few articles pointing out some of the many fine contributions of today's youth, rather than following the trend to publish the errors of the minority. Today's young people have the sincere sympathy and heartfelt pride of my entire family. Parents of New England, give these youngsters the "Parenting" they deserve!
— Mrs. Henry G. Lara, Kittery, Maine

HEMLOCK DYING

Is the Canadian hemlock, one of the most useful of evergreen trees, to suffer the same fate as the American chestnut? Or will the dying be more gradual, as appears to be the lot of the American elm? Whether gradual or swift, destruction of the hemlock would be a tragic loss.

In Massachusetts, Connecticut, southern New York, eastern Pennsylvania and parts of Ohio and Maryland a tiny suckling insect, hemlock florinia scale, is plentiful enough to cause the foliage on large numbers of hemlocks to turn yellow and drop, resulting in death of the tree.

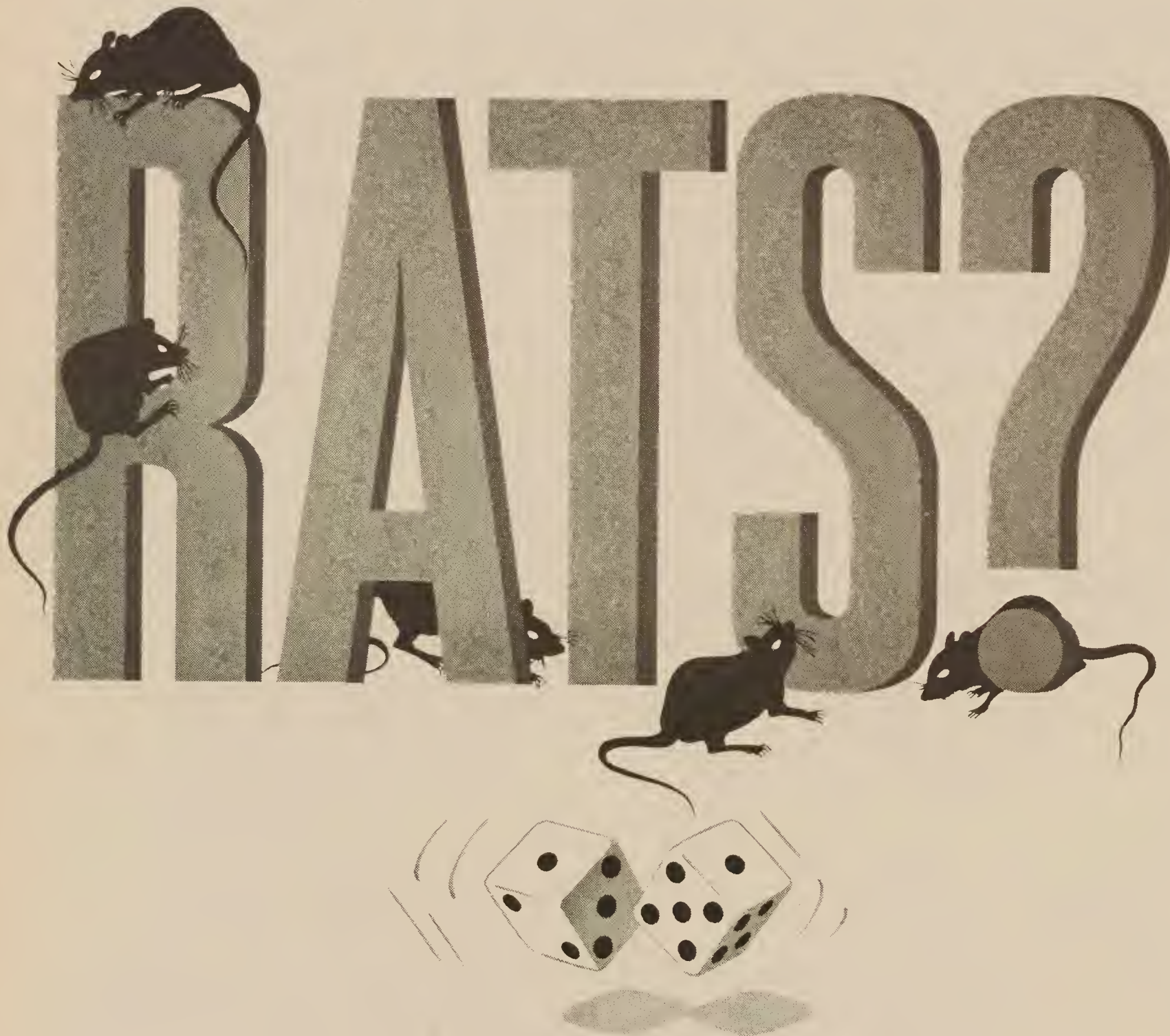
The build up of the past has been gradual with lesser damage to spruce and fir. Entomologists have been carrying on research for several years, striving to find a control. Control appears possible, but expensive. Eradication is questionable. The situation this year in eastern Pennsylvania and in Maryland is far from encouraging. The use of a very toxic systemic chemical offers some hope, but little more. — H. Gleason Mattoon, P.O. Box 25, Yarmouth Port, Mass. 02675.

RACCOON HUNTER

Your article on wildlife was excellent. No one but a farmer growing corn for market knows what raccoons do to corn.

Here in Connecticut my husband has an open season on them. The permit is obtained from the State Board of Fish and Game. We are not paid, and the only requirement is to fill out a State form at the end of the year giving names, addresses, etc. where they were hunted. Believe it or not, in six years the score as of today (August 1) is 660! — Mrs. Ivan Moore, Bloomfield, Connecticut

American Agriculturist, November, 1966



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NEW YORK BALLOT

THERE will be 12 statewide questions on the New York State ballot this year for voter decision... one proposition and 11 proposed amendments to the State Constitution.

Proposition One — authorizes the State to borrow \$200 million for development and acquisition of lands for outdoor recreation. The \$200 million would be allocated as follows: marine projects — \$60 million; state park projects — \$55 million; forest recreation projects — \$15 million; municipal park projects in New York City — \$25 million; municipal park projects outside New York City — \$25 million, and historic site projects — \$20 million.

Debt service on the \$200 million bond issue, along with debt service on the \$100 million debt for park and recreational land acquisition authorized earlier (\$75 million in 1960 and \$25 million in 1962), is to be paid off by fees and charges for the use of the facilities, motor boat registration fees and tax revenues from motor fuel used by boats.

Amendment One — The New York State Job Development Authority grants long term, second mortgage loans to local nonprofit industrial development corporations to assist in construction of new plants, and expansion and rehabilitation of existing plants. The Authority loans up to 30 percent of the cost of land and buildings with the other 70 percent provided from private sources.

At the present time the Constitution permits the State of New York to guarantee up to \$50 million of bonds issued by the Job Development Authority to provide money for these industrial development loans. This proposed amendment would permit an increase in that amount to \$75 million.

As of July 1966, the JDA reports that 213 loans have been made, totaling approximately \$28 million, and that these loans have created an estimated 9,100 new jobs and have saved an estimated 4,200 jobs in localities across the State.

Amendment Two — At the present time, the Job Development Authority is permitted to use the money borrowed through the sale of State-guaranteed bonds only to provide additional employment in those areas of the State in which unemployment is or may become a critical problem. This proposal would permit the JDA to loan such money to improve employment opportunities in any area of the State.

Amendment Three — In addition to other indebtedness, cities, towns and villages may borrow money for construction of public housing and urban renewal projects. Under present constitutional provision, the additional debt is limited to 2 percent of the average assessed valuation of real estate subject to taxation in the city, town or village on the last five assessment rolls. The proposed amendment would change this limit to 2 percent of the average full valuation of the tax-

able real estate on the last five assessment rolls.

This proposal was part of proposed Amendment No. 1 submitted to the people at the election in 1964 that was turned down by the voters.

In reference to the effect of this 1964 proposal, State Comptroller Arthur Levitt reported that the change would increase the authorized debt limits of the 62 cities and the 93 largest villages in the State by \$236.4 million.

Amendment Four — With certain specified exceptions, the Constitution now prohibits the gift or loan of state money and credit for private purposes. Among the present exceptions are care and support of needy persons and education and support of the blind, the deaf, the dumb and the physically handicapped. This proposal also would make an exception for the mentally ill, the emotionally disturbed and the mentally retarded.

Amendment Five — At the present time, the Legislature has power to provide for an increase in the pension of teachers who retired in earlier years on pensions no longer commensurate with cost of living. This proposal would permit the Legislature to make provision for adjustment in the pensions of widows of retired teachers.

Amendment Six — At the present time, the residence requirements for voting eligibility are one year in

the State, four months in the county, city or village and 30 days in the election district. Under this proposed amendment, the requirement would be that the voter "shall have been a resident of this state, and of the county, city, or village for three months next preceding an election." The proposed change omits any length of residence requirement in the election district.

Amendment Seven — would permit lotteries operated by the State and the sale of lottery tickets as authorized and prescribed by the Legislature. The proposed amendment provides that the net proceeds "shall be applied exclusively to or in aid or support of education in this state as the legislature may prescribe."

Amendment Eight — At the present time, voters otherwise required to register in person do not have to meet this requirement if their duties, occupation or business requires them to be outside the State of New York on registration days.

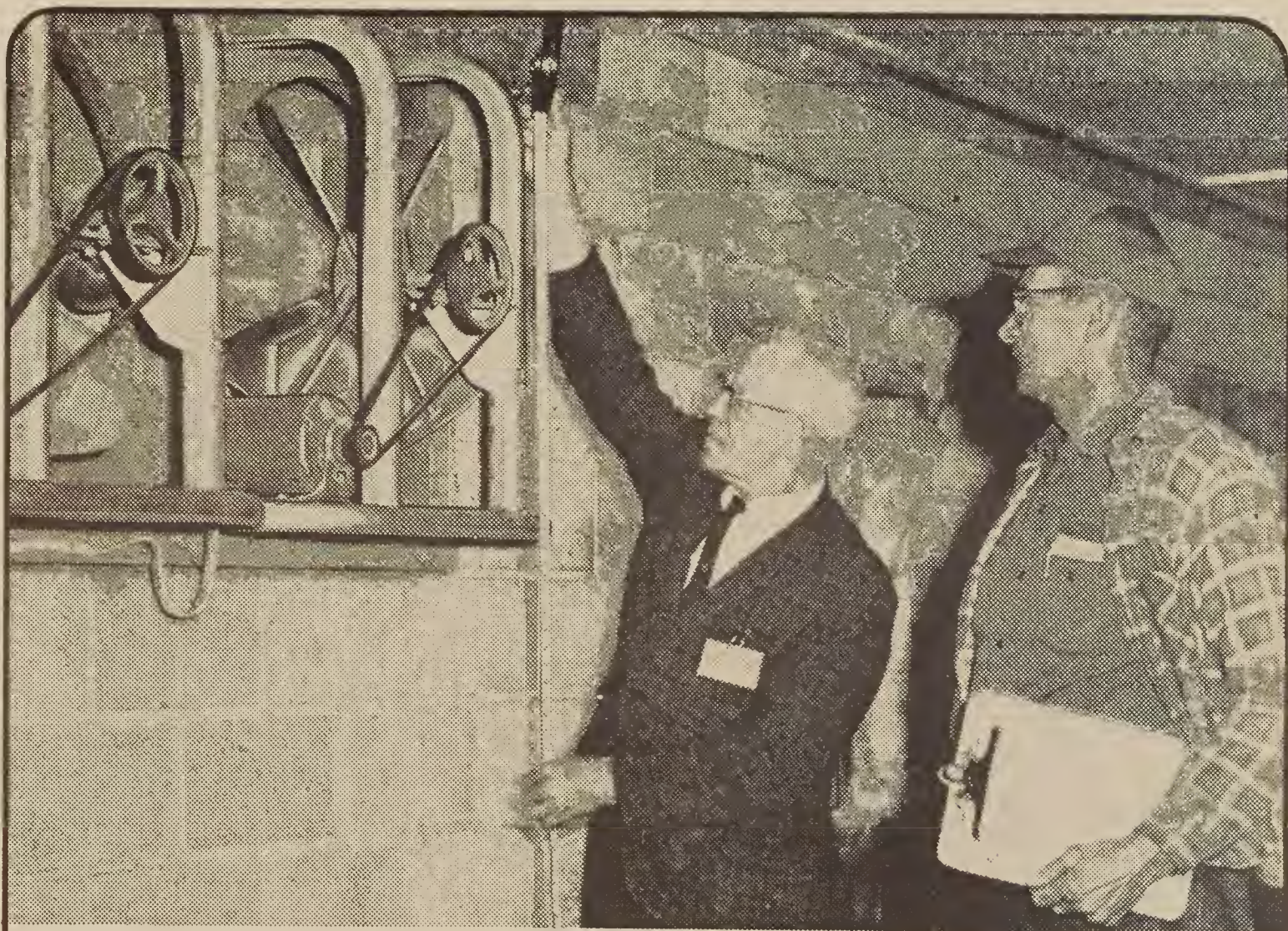
This proposed amendment would remove the requirement for personal registration for voters whose duty, occupation or business require them to be outside the counties of their residence or, in the case of voters in New York City, outside that City on registration days.

Amendment Nine — would provide for the fiscal independence of the Buffalo city school district by permitting the school district and the city to levy and collect taxes (and

to incur debt) independently of each other. At present the large city school districts of New York, Buffalo, Rochester, Syracuse, Yonkers and Albany are administered as part of the city government. Local taxes for the schools are raised by the cities and school debt is part of the city debt. All other city school districts in the State are fiscally independent.

Amendment Ten — At the present time provision is made that a former judge of the Court of Appeals retiring at age 70 may continue to serve as a justice of the Supreme Court for three additional terms of two years each. This proposed amendment provides that such judges may be designated by the Court of Appeals to perform the duties of a judge of the Court of Appeals for three additional terms of two years each.

Amendment Eleven — At present time, a justice of the State Supreme Court is required to retire at the end of the year in which he reaches 70. There is provision, however, for retired justices to continue to serve for three additional terms of two years each. This proposed amendment would add the provision that any retired justice of the Supreme Court who had been designated to and served as a justice of any appellate division immediately preceding his reaching the age of 70 shall be eligible for designation by the Governor as a temporary or additional justice of the appellate division.



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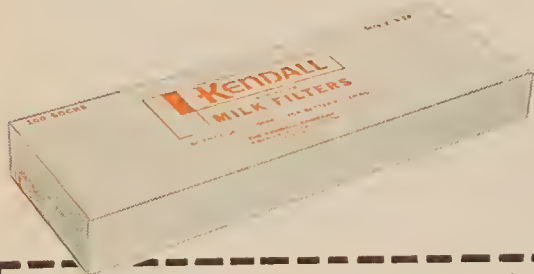
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HOW TO LOSE AN ARM

THERE ARE many reasons why farm people have accidents; often, it is a combination of things that lead up to them. For example, let's take the case of farmer John Smith who lost an arm in a corn picker trying to unclog it with the power "on." But let's look back to what happened before the serious accident that cost John his arm. He was considered a careful and safe operator.

A week before the accident, John and his neighbor had an argument over an unrepaired fence that permitted the neighbor's cattle to do considerable damage. The night before, they had met in town and had an angry exchange of words, and John came home boiling angry. He lay awake perhaps half the night.

Tough Day

The morning had gone badly . . . his truck had a flat tire, the tractor wouldn't start, and he was in a bad mental mood. He had gotten up tired and jittery and was so preoccupied thinking about what he'd tell Brown about his destructive cattle that he simply wasn't paying much attention to his job. His reflexes were much slower than usual.

So now an accident stage had been beautifully set . . . a tired, angry, preoccupied man . . . a powerful tractor and a potentially dangerous machine . . . then suddenly a bad clog that angered him further. Without thinking, he jumped off his tractor, without turning off the power, and attacked the mass of stalks and weeds. Then, suddenly it happened!

The Moral

The moral of this example is that no such accident is simple. Generally there are many things that contribute to it; far too often there are many such "human" factors behind farm accidents:

Some of the human factors behind farm accidents are fatigue, working while sleepy or while taking strong medicines . . . not feeling up to par. The farmer should take brief breaks during the work day, if necessary, to prevent fatigue. If he doesn't feel well, he should take it easy and not try dangerous jobs (like climbing to the top of an empty silo) until he's back to normal. Some medicines make persons drowsy or less alert. Hazardous activities such as operating machines, climbing lad-

ders, fixing roofs, driving, and heavy labor should be avoided while taking medication.

Anger, emotional upsets, being "down in the dumps," grief, worry, tension . . . these can set the stage for accidents in any profession. When angry, take the necessary time to calm down. Anger is a leading cause of accidents.

Lack of skill or knowledge of the job at hand causes countless accidents. Learn the safe way, which is usually the right way. When tackling a job or activity that is new to you, get someone to help or show you how. Ask questions. When using new or unfamiliar farm machinery, read the instructions manuals carefully. Always carefully read the labels on all farm chemicals before using.

Avoid taking unnecessary chances or using unsafe shortcuts such as not shutting off the power before unblocking a machine. A wee bit of extra time at the moment might be saved, but an accident could cost far more time later. The odds are against you when haste makes you forget to be safe.

Ho Hum!

Avoid boredom, monotony, daydreaming or getting too preoccupied in thinking of something else while working at jobs needing your full attention for safety. Such routine as sitting on a tractor all day or driving at about the same speed on a straight superhighway can be dull, in a literal sense. Varying the routine sometimes helps. Seeing new things or new angles about the job may help.

Age is important . . . you can be too young or too old for some farm work. Remember that physical defects or limitations, poor vision, slow reaction time, dizziness, poor health, can and do enter into the accident picture. Young children and infirm elderly people are vulnerable to accidents. Persons with poor vision or slow reaction cannot safely perform certain activities.

Avoid extreme hunger (low blood sugar), excessive exposure to heat or cold, too much vibration or noise of machines, dust, fumes from engines or chemicals, and alcohol. Statistics show that farm accidents increase toward lunch and in the late afternoon . . . times when the blood sugar is down.

Midmorning and midafternoon snacks during busy times can help to prevent a let-down, and they

can help you to carry on your work at top efficiency and safety. Avoid excessive extremes of hot or cold if you can. Dust and fumes from engines or chemicals affect safety. If necessary a respirator should be used.

Be Prepared

Be prepared for the unexpected. Learn not to panic but rationally cope with each difficult situation as it arises. Think about how to cope with possible situations before they occur.

Avoid putting off necessary repairs. Discipline yourself to remove or correct possible hazards promptly. Do not overlook or ignore small things that could cause big trouble. Remember to put shields back on machines when removed. The hazard you may put off fixing today may hurt you tomorrow or even months later.

Survey your farm and your home and your barns periodically for hazards that might hurt someone, cause a fall, start a fire, or entice children into trouble. Check wiring, clear all steps and stairs, inspect the heating system, look over your machinery guards, review your method of chemical or fuel storage. Repair weak or wobbly ladders.

Positive Thinking

Avoid any negative attitude toward safety, or thinking that accidents are someone else's problem. The "it can't happen to me" attitude has caused untold suffering and misery. Learn to care. Respect the hazards of farm life. Maintain regard for other people.

The failing to protect and train children is wrong. Not anticipating their behavior, letting them ride on machines or tractors, not keeping them away from dangerous places or farm activities causes loss of lives and limbs. You are, to a large degree, responsible for their safety. Teach them to keep things clean and clear.

By observing these safety rules . . . much "HARM ON THE FARM" can be avoided.

MILKING MACHINES

A booklet has been prepared by the Milking Machine Manufacturers Council of the Farm and Industrial Equipment Institute. Entitled "The Modern Way to Efficient Milking," it contains a complete summary of recommendations by milking machine manufacturers concerning the machine, the cow and the operator. It covers such things as the procedures for milking machine operation, the basics of milking machines, technical specifications of and recommendations for vacuum pumps, and recommended milking procedures.

The booklet, priced at \$1.00 per single copy, or 25 cents each for 10 or more copies, may be ordered from the Milking Machine Manufacturers Council, 410 North Michigan Avenue, Chicago, Illinois 60611.

American Agriculturist, November, 1966

Milton Burdick and a few of his high bush blueberries. Note mulch of wood shavings along row.



FROM COWS TO BLUEBERRIES

by Hugh Cosline

MILTON BURDICK is oneformer dairyman who no longer worries about milking. Instead, he worries (but not much) about growing blueberries.

He's doing it on a former potato farm near East Otto in Cattaraugus County, New York, at an elevation of 1450 feet on soil with a pH of 4.5 to 5.

Blueberries thrive on an acid soil, so when he fertilizes he uses a mixture of two nitrogen carriers that are acid in reaction . . . ammonium sulfate 80 percent, and magnesium sulfate 20 percent . . . the latter because the bushes sometimes show a magnesium deficiency.

Once Potatoes

Milton moved to the present farm in '52. He rented and grew potatoes, later bought it and began to set blueberries, the present acreage of various ages totalling 30 acres, with 10 different varieties.

When ripe they make a beautiful sight. The bushes, in regular rows, are mulched heavily with wood chips once in three years. There is grass between the rows, which is mowed with a power mower whenever it reaches a height of around five inches. The grass prevents erosion, and is pleasant for the pickers.

It seems that any crop that is grown in quantity must be sprayed for insects and plant diseases. Wild blueberries are common in Pennsylvania, and in Canada, and no one thinks of spraying them . . . but Milton sprays 5 or 6 times.

Pruning

Pruning is done yearly. New growth that develops this year bears fruit next year. These are high bush berries, with some of the older ones now around 6 feet tall.

One advantage of the crop is the relatively long harvest season, lasting until around Labor Day. The varieties grown ripen at different times, which helps to extend the season. Milton has an added advantage in selling the entire crop at the farm to customers who come and pick their own. "I could sell a lot more if I had them," he says.

"Last summer," he continued, "the berries were picked quite close,

and we shut pickers out for several days. When we let them in again 1500 pickers appeared, and in one day took off 5 1/4 tons of berries! We keep a good-sized field in grass and keep it mowed for parking cars."

Milton does no advertising. Pickers mostly come from a radius of 50 miles, but occasionally they come from as far as Rochester or Syracuse.

"How did you learn the business?" I asked. "I learned the hard way," he replied. "I went to New Jersey to see how they were grown there, but conditions are entirely different from here. I read, consulted experiment stations, and tried various practices. Some varieties that were recommended didn't do well at all. Now I grow my own plants, which is tricky, and I also sell some plants. Cuttings are taken from this year's growth, but I am lucky if half the cuttings produce plants."

Good Yield

"What is a good yield?" I asked. "Most of the bushes have not yet reached full growth," Milton explained, "but I estimate that in a good year the yield on a mature planting might be as high as 5 tons per acre."

All this presents a pretty picture, and I would guess a profitable one, but like all farm ventures it has its headaches. I doubt that too many dairymen will sell their cows and plant blueberries. I hope not, because the result might be too many berries and too little milk!

However, if you think I have painted the picture in too rosy hues, you might want to stop and see for yourself. If you do, I am sure you will get a warm welcome. Be sure to do it in harvest season . . . and take along some baskets!



I talk, they say, like Mother.
My smile is Father's. Gee!
But when I'm bad I understand
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—Graham Hunter

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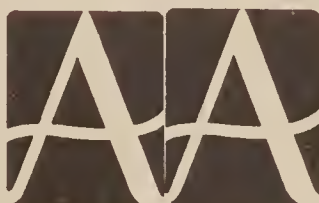
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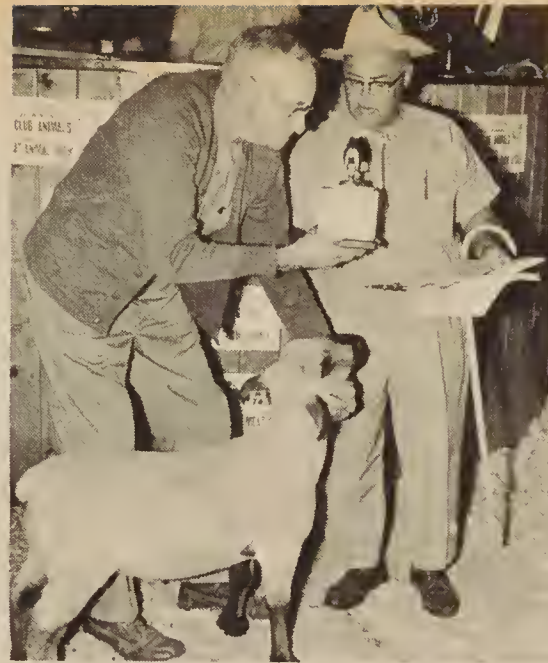
Remember your great pride in your first car? Remember how your friends (?) used to yell at you . . . "Get a Horse" . . . when you stopped to patch a tire? It's all in chapter eight under the title of "Them Horseless Wagons," in Ed Eastman's great book, "Journey to Day Before Yesterday."

WHAT DO YOU WANT?

If you are looking for stories of sex, violence, murder and sudden death, you won't find them in E. R. Eastman's wonderful book,
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But if you are looking for romance, rollicking humor, and human interest stories of the horse and buggy days, if you want to relive happy memories of your youth, if you are looking for a birthday or Christmas present that will gladden the heart of your friend or relative and set him to "remembering when" and that he will always prize—then you will want a copy or copies of "Journey to Day before Yesterday."

You can get a copy of this beautifully-printed and bound book in album form, illustrated by many old-time pictures, by sending \$5.95 (New York state residents add 12¢ tax) post office money order or personal check to American Agriculturist, Book Dept., Savings Bank Building, Ithaca, N.Y. 14850.



Jim McGuire accepts from Bob Rector, of the Empire Livestock Marketing Co-operative, the trophy for top lamb in Caledonia show.

CALEDONIA LIVESTOCK SALE

by H. A. Willman*

BIDDING was spirited as 401 animals entered by 180 exhibitors from 22 counties were auctioned to area meat suppliers, business firms and merchants at the 17th Annual "Meat Animal" Sale, held in September at the Empire Stockyards, Caledonia, New York.

The owners of the 4-H Division Champions, all from New York State, were: Champion lamb owned by Charles Fitzpatrick, Wayland; Reserve Champion by Sharon Hunt, Ithaca; Champion pen of lambs, Donna Cook, Trumansburg, and the Reserve Champion pen of lambs shown by Timothy Fitzpatrick of Wayland.

In the 4-H Hog Division, the Champion hog was owned by Timothy Howland, Newark Valley; the Reserve Champion by Ellen Poormon, Waterloo. The Champion and Reserve 4-H pens were exhibited respectively by Richard Stein of Caledonia and Timothy Howland, Newark Valley.

The Grand Champion 4-H steer of the Show was exhibited by John Good of Perry, while the Reserve Grand Champion steer was owned by Carol Lockwood, Castile.

The Champion open class single lamb . . . and the Champion open class pen of lambs . . . were shown by James McGuire of Oakfield. William Fitzpatrick, Shamrock Farms, Wayland, took Reserve Champion honors for single lamb, and also showed the Reserve Champion open class pen of lambs.

The Champion open class steer was entered by William Seldon, Elm Place Angus Farm of Avon; the Reserve Champion by Harold Smith of North Rose. The Champion and Reserve Champion open class pen of steers were shown respectively by Elm Place Angus Farm, and Murray and Jay Silsby of Gasport.

The Champion open class hog was exhibited by Michael Poormon of Waterloo, while the Reserve Champion was shown by LeRoy Poormon, Happy Acres Farm, Waterloo. The Champion open class pen of hogs was shown by Fred Olmstead, West Bloomfield; the Reserve Champion pen by Happy Acres Farm.

*Professor Emeritus, Cornell University

News and views

(Continued from page 18)

liamson, New York. FFA's top dairy farmer in the North Atlantic Region, Richard is married and successfully established in full-time farming. He operates a 152-acre dairy farm featuring 30 registered Holstein milking cows, with 30 heifers coming along. The herd averaged more than 16,000 pounds of milk per cow last year, and Richard is shooting for an 18,000 pound average within the next five years. The top winner among the four will be picked by a committee of judges.

Wood Utilization Team — The State University College of Forestry, Syracuse, New York, and the New York State College of Agriculture at Cornell University, have created a "wood utilization" team to carry out an expanded Extension education program in the entire field of wood processing and use. The team members will supply information to industry managers, conduct short course, conferences and clinics, carry out studies in certain problem areas, and prepare reports. Much of their time will be spent in the field. All three members of the team are experienced in the wood industry and in teaching.

Half Million Layer Operation — L. M. Sheaffer, Cloisterdale Farms, Inc., Lancaster County, Pennsylvania, has broken ground for a half million layer operation. The new facility will include candling and packaging equipment, and will feature the continuous flow of eggs from the nest into the carton. It is scheduled to be ready in the fall of 1967. At present the Sheaffer organization has housing capacity for 100,000 layers, with ultimate capacity for 150,000. When the new operation is under way, consumers will be able to get eggs not over 24 hours old.

New Geneva Building — A \$3.4 million Entomology and Plant Pathology Building is scheduled for the Geneva Agricultural Experiment Station, which is part of the Cornell College of Agriculture. The facility will be used for extensive research for the development of insect control programs through an increase in the knowledge of insects' life habits and propagation . . . thus reducing reliance, it is hoped, on toxic chemicals; also to assist scientists in the development of disease-resistant varieties of fruits and vegetables. It is expected to be available for use in the fall of 1968.

New Book — Empire Staters will find a vast amount of information in a new book, "Geography of New York State," by John H. Thompson. Sixteen specialists in geography, history, economics, forestry, and recreation have contributed to the book. Available from the Syracuse University Press, Box 8, University Station, Syracuse, New York 13210. Price \$11.95 (plus 2 percent tax in New York).

American Agriculturist, November, 1966



Lloyd Corwin with a few of the thousands of ducks in the background. At the left of the pens you can see the shallow concreted troughs.

WANNA BUY A DUCK?

by Hugh Cosline

SOME OF you older readers will remember Joe Penner, a popular comedian whose "opener" was "Wanna Buy a Duck?" Too bad Joe didn't visit the Crescent Duck Farm at Aquabogue, Long Island, where he could have bought one duck or a thousand. In fact, in a year the farm raises around 800,000 of them!

Lloyd Corwin, representing the third generation of duck growers, tells me this is the only farm on the Island that breeds, grows, processes and sells what they produce.

"Not much has been done in duck research to step up egg production," said Lloyd. We select breeders . . . about 10,000 of them. They start laying at 6 months of age, and may lay 150 eggs each. We plan to keep breeders for two laying seasons.

"We incubate from 24,000 to 26,000 eggs a week. The young ducklings are put on wire and fed a pelleted starter for 2 weeks. Then they go on a pelleted growing mash.

"About half the birds are grown in confinement; until marketed about half are grown outdoors. We are aiming for keeping them all inside eventually."

Need Water

Ducks need water, and it is always available in shallow concrete troughs at ground level. Recently a costly purifying system was installed. In a good-sized pond several pumps will spray the dirty water into the air, where it will pick up oxygen.

One of the problems is disposal of the droppings. They are carried off in water, and allowed to settle, but Long Island farmers aren't too interested in the product. Where they want it, the farm delivers it to them in trucks. Some is used to fill low land.

"How much help do you need?" I asked.

"It takes 13 or 14 full-time men on the farm, plus some part-time workers. When we process the ducks, 36 people are working on the assembly line," was the reply.

Actually you might call it a

"disassembly line." The birds are killed at from 6 to 7½ weeks of age. It used to take 10 weeks to grow a duck, but better nutrition and other improvements have drastically reduced the time required.

Feather Pickin' Hands

After the birds are killed they go through a scald, and the feathers are removed by a mechanical picker with dozens of rubber "fingers." Then they go through a hot wax bath, and after it is cooled, the wax is stripped off, taking with it any remaining pin feathers.

Next the birds are eviscerated, all the time moving along an endless chain. Heads are removed, frozen, and sold to mink growers. The feet are taken off, frozen, and shipped to Hong Kong, where (believe it or not) they are eaten.

The ducks are cooled, and each one goes into a plastic bag, from which excess air is removed. Then they are packed in a box and quick frozen.

"How do you market the ducks?" I asked.

"They go to many states, even as far as Florida and California by refrigerated truck," was the reply.

The ducks go mostly to hotels and restaurants, and every bird is inspected before freezing by a USDA employee. We have a man in New York City who sells for us."

The processing plant at the Crescent Duck Farm operates 47 weeks in the year, shutting down for 3 weeks to give the employees a rest. In summer about 18,000 ducks a week go through the plant; in winter about 14,000.

The business was started in 1908 by Henry F. Corwin, Lloyd's grandfather, and is obviously progressive and well-managed.



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here you come?

Learn how you and your family can get there, enjoy yourselves for two weeks, and get back without spending a penny. Read about it in Agway's December ad.

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Cartoon by Charles Schulz

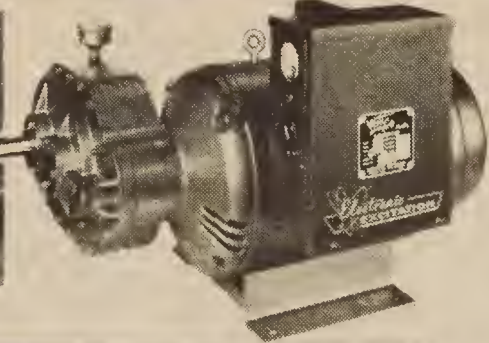
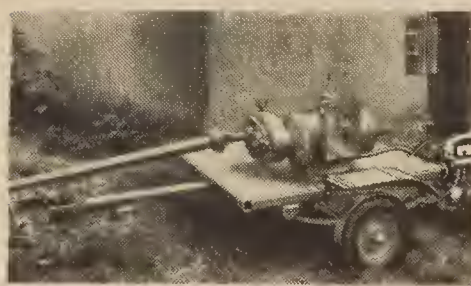


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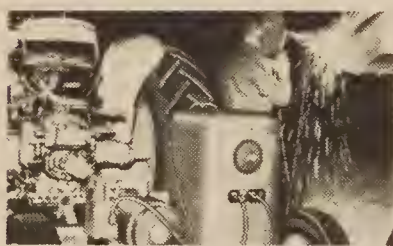


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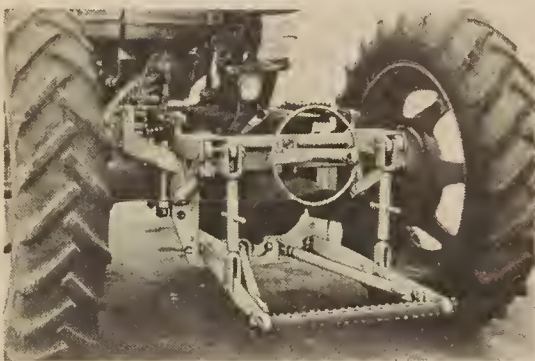
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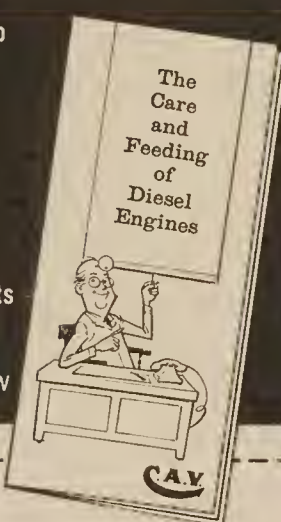
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Hothouse tomatoes

(Continued from page 17)

fodils we increased the tomatoes, until now we have 28,000 square feet under glass.

We sow seed of the variety Manapal in early December, transplant about January 15, and harvest tomatoes in late April. May and June are the big months, but some are picked in July. We aim to get 12 pounds of tomatoes per plant.

A relatively new wrinkle is to use carbon dioxide in the greenhouse. Plants use CO² to produce carbohydrates, and apparently not enough CO² is produced naturally under glass. We are told that using carbon dioxide under glass will double a lettuce crop, and increase the yield of tomatoes 15 to 20 percent.

At first we bought CO² under pressure in cylinders, but now burn a special type of propane gas and use a special type of distribution.

We tried growing hothouse tomatoes in the fall, but production was low, doubtless due to short days. — *Nat Talmage, Riverhead, Long Island.*



ACRES OF ONIONS

In about ten years, onions of the sweet-Spanish type have been grown in this area at the end of the north fork of Long Island. We grow 42 acres.

Plants are flown in from Texas and set by machine about the first of April. They are set 4 1/2 to 4 3/4 inches apart in rows 20 inches wide. The crop needs plenty of lime, and a complete soil test on all fields is made every fall. We try to put lime on in the fall, hiring it spread, so we are all ready to go in the spring.

The crop is fertilized with from 1000 to 2200 pounds of 5-12-5. Chemical weed control is used, and the onions are cultivated twice.

Onions are sold at the farm and trucked to many cities, principally New York . . . but also to Boston, Washington, and others.

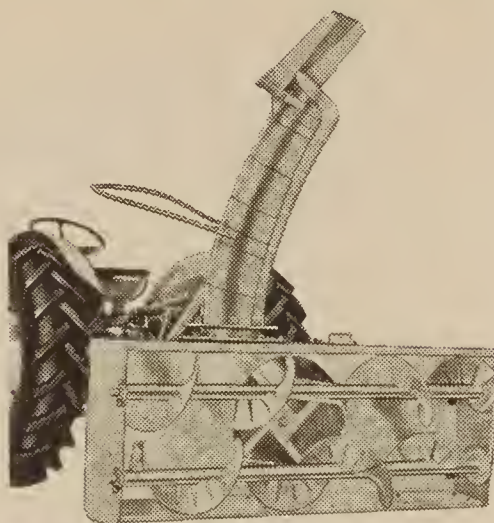
We also grow 18 to 20 acres of cucumbers, 25 to 30 of beans, 8 of strawberries, and 12 of cabbage. All crops are irrigated.

We do not sell strawberries "pick 'em yourself." We have a labor camp for Puerto Ricans who get 10 cents a quart for picking. The berries (and other crops, too) go by boat across the Sound to Boston.

One reason for berries is to provide work for the gang early in the season. We set berries every year, but try to get a crop the second year. Varieties are Midland (early), Surecrop (mid-season), and Jerseybelle (late).

This area once grew very little except potatoes — *Ed Latham, Orient, Long Island.*

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MODEL 600

New, heavier Model "600" Sno-Lander for fast, positive snow removal around farms and business firms. A simple, rugged machine, it can be powered by an ordinary farm tractor or mounted on a truck or jeep. Made in Canada—to meet rugged, Canadian conditions—it represents best quality Canadian materials and workmanship. Parts include heavy duty gear box, slit spiral augers with replaceable sprocket drive, casting chute rotating 190°, all steel casting rotor capable of throwing snow up to 60 feet at 600 rpm.



MODEL 400

The Model "400" is specifically designed for the up to 40 H. P. tractor. Heavy duty rotor throws snow up to 40 feet and the scraper blade cuts right down to the road bed. Full width auger chews up the hardest snow drift. This versatile machine is "just right" for lane-ways, roads, parking lots and open air skating rinks.

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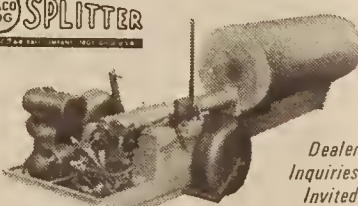
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Recommended for folks approximately
40 years or older who do not have astigmatism or disease of the eye, and who
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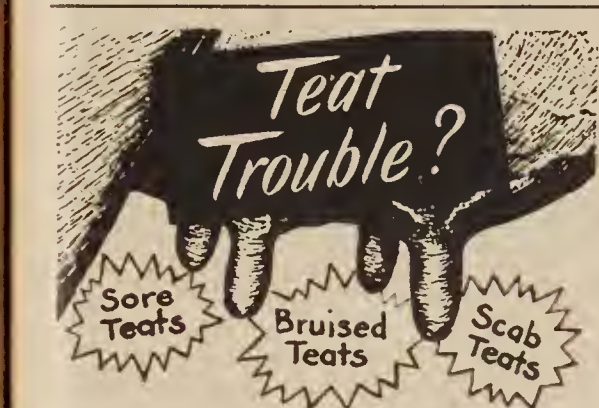
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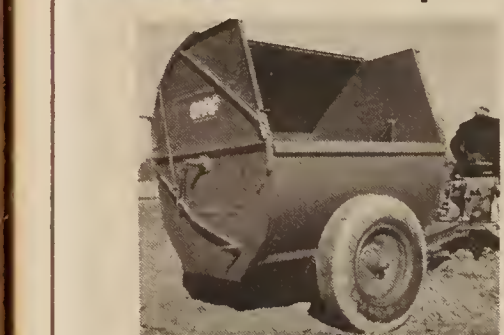


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American Agriculturist, November, 1966



CLOSE THE GAP BETWEEN GENERATIONS

Last spring the churches of our community had a series of meetings on "applied Christianity." One evening was devoted to the theme, "Bringing Christ Into our Thinking About Youth." The meeting was divided into sections, according to the age and family situation. In a youth section, the young people were asked what they thought about themselves.

Out of their discussion we parents later learned... to our surprise... that one of their deepest concerns was to be well thought of by their parents. One of their greatest fears was the fear of disappointing them by their failure and lack of achievement. One of their greatest desires was for more honest-to-goodness, straightforward conversation with their parents. One teenage girl declared: "I cannot remember my mother sitting down and talking with me for any length of time. It is always over an ironing board, or in snatched moments of time."

How seldom have we who are parents taken time out to talk to our young people! What better way of showing our love and concern, and their importance to our lives, than by simply giving them a half-hour of undivided, unhurried, direct conversation.

Of course, there are two sides to this as in all problems of human relations. What high school teenager will admit that he or she has time to talk to parents, or that either of them has anything to say to each other. Yet I cannot help but believe that the young people in our conference were honest, serious, and concerned.

How wonderful it is when people discover they can communicate across the generations. It was the great Oliver Wendell Holmes at the age of 90 who said to his granddaughter Sarah... at the age of fourteen... "I won't keep anything from you because you are too young. Now don't keep anything from me because I am too old."

What are the ground rules for this kind of a conversation? Surely it must include faith, respect, love... and acceptance without ridicule or contempt on both sides. Dr. Michael O. Sawyer, professor at Syracuse University, has declared that what this generation of college young people wants from older people is "faith and respect not rationed by performance." Isn't this what we older people want as well?

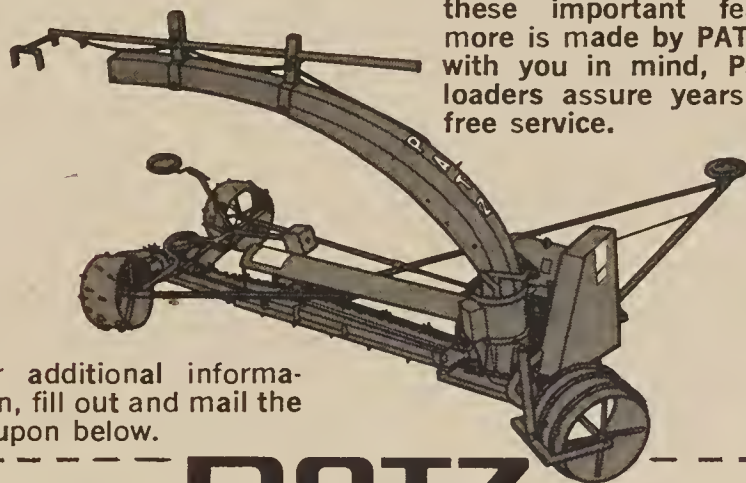
It's a large order, hard to fill, but surely worth our effort, whether we represent youth or age. Why not take time to talk to the generation ahead and the generation behind? The lives of us all will be infinitely enriched by conversations across the generations.

CHECKLIST for buying a silo unloader

If you're considering a silo unloader, be sure it has all these important features:

- | | |
|--|---|
| <input type="checkbox"/> Heat-treated Gathering Chain for cutting toughest silage | <input type="checkbox"/> Clutch Control to permit self-cleaning of chain and blower |
| <input type="checkbox"/> Efficient High-Capacity Blower to reduce electrical needs | <input type="checkbox"/> All Parts Fit through standard chute and doors |
| <input type="checkbox"/> Automatic Leveler to assure even cutting | <input type="checkbox"/> 70' Approved Electrical Cord |
| <input type="checkbox"/> Pre-set Depth Control to eliminate daily settings | <input type="checkbox"/> Adjustable Skirt for maximum silage pickup |
| <input type="checkbox"/> Telescoping Adjustments to fit silos varying 4' in diameter | <input type="checkbox"/> Twin Drive Wheels use machine's own weight for traction |
| <input type="checkbox"/> Special Adjustments for out-of-round silos | <input type="checkbox"/> Frost Rings on caster wheels |
| <input type="checkbox"/> Power Frost Cutter to remove all frozen silage from walls | <input type="checkbox"/> Two-point Contact with silo wall to prevent binding |
| <input type="checkbox"/> Husky Industrial-type Motor | <input type="checkbox"/> Cadmium-plated Bolts to prevent corrosion |
| <input type="checkbox"/> Reinstalls Easily from silo to silo | <input type="checkbox"/> Two Waterproof Electrical Wire Motor Connectors |
| <input type="checkbox"/> Safe — nothing in operation overhead | <input type="checkbox"/> Optional Tripod — for use with tractor lift or winch |
| <input type="checkbox"/> Machine Weight Rests on silage — can't weaken silo walls | <input type="checkbox"/> Optional Automatic Control |

The only silo unloader with ALL these important features and more is made by PATZ. Designed with you in mind, Patz silo unloaders assure years of trouble-free service.



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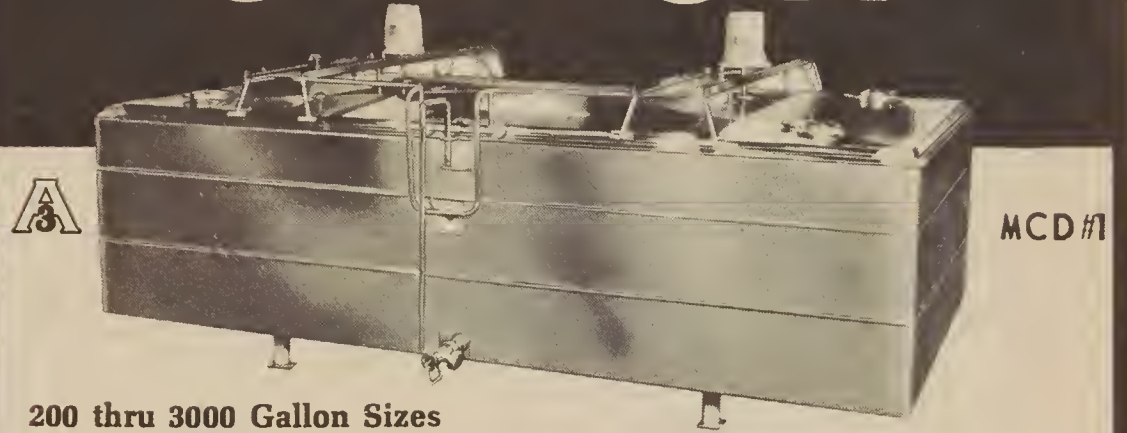
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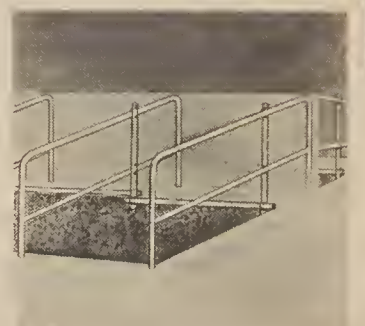
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- Patented refrigeration cools milk cheaper, with less parts, than any other system.



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NON STOP!

AND NEW!



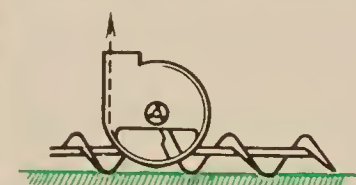
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—with the rugged new *Swinging Paddle Thrower*!

Hard-packed silage won't stop a Badger Silo Unloader—nor will frozen silage or the most stubborn haylage you can store. The reason is Badger's unmatched cutting-slicing-digging action that gives *non-stop* unloading.

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KEY TO BADGER'S NON-STOP UNLOADING—the all-new *Swinging Paddle Thrower*—now standard equipment on all Badger Silo Unloaders! Three cup-shaped paddles, mounted on a heavy cast hub, move silage from auger through thrower spout in a smooth and continuous flow.

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As little as 20% initial payment, up to four years for balance. Payments tailored to your convenience. Leasing, too! See your dealer.

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Chain saws equipped with the revolutionary **POWER-SHARP SYSTEM** sharpen the chain in five seconds! Right on the saw.

The system is built into the saw. When the chain becomes dull, simply operate the sharpening stone mechanism with the saw engine running... and you've got a sharp chain, immediately.

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You get the same sharpness, the same uniform cutting angles and depth gauge setting as when the chain came from the factory.

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Your saw will last longer due to the smooth cutting. There's less strain on chain, bar, sprocket and engine. You'll spend less on repairs.

Ask Your Dealer For A Demonstration Of The New POWER-SHARP SYSTEM

Sharpens Your Chain With Saw Power



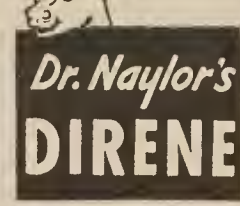
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Stop Diarrhea with New **DIRENE** —Intestinal antiseptic with 3 way action Control bacterial infections — Absorb harmful toxins — Coat, soothe, protect irritated stomach and intestinal lining. 14 oz. pkg. \$1.25 at dealers or postpaid. **H. W. NAYLOR CO., Morris 1, N.Y.**



Remains of the Inca Empire are found throughout Peru.

COME ALONG!

Next January, when winter snow and ice have chilled the Northeast, you can travel with American Agriculturist to the lands of perpetual summer for a carefree vacation that will surpass all your expectations! We're offering a glamorous South American vacation that will take you to six countries, plus Panama. Our tour directors will be the Travel Service Bureau of Needham, Massachusetts, the folks who do such a wonderful job organizing and conducting all our tours.

We'll leave New York on January 11 by a Pan American jet bound for Rio and return February 9 aboard the SS Santa Magdalena. Here is a very brief outline of the places we will visit.

Brazil — In addition to Rio, where our hotel is located on world-famous Copacabana Beach, we'll visit the beautiful resort town of Petropolis and Sao Paula, largest industrial center in the country. Another interesting and enjoyable day will be spent on a coffee plantation.

Uruguay — We'll stay in Montevideo, the capital city, and take a trip from there to Punta del Este, known as the "little Riveria" of South America.

Argentina — Buenos Aires is, of course, our headquarters, and we'll

have plenty of time for sightseeing and shopping in the fine stores. We'll also have a chance to get out into ranch country and watch the cowboys in action.

Chile — Crossing to the west coast, we visit Santiago and Vina del Mar, located in the midst of the majestic Andes Mountains.

Peru — We stay in Lima and make excursions to Pachacamac, Chosica, and Granja Azul. It's here we board the Santa Magdalena for our leisurely cruise homeward.

Ecuador — We go ashore at Guayaquil and visit a banana hacienda.

Panama — Before passing through the Canal, we spend a morning in old Panama City.

Send today for the itinerary which also gives you complete information regarding cost of the "all-expense" ticket. We hope you'll come with us!

Gordon Conklin, Editor
American Agriculturist
Box 370-T
Ithaca, New York 14850

Please send me, without obligation on my part, the itinerary for your South American Cruise-Tour.

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PLANTING - 1975

Some day the farmer may be fracturing the soil with ultrasonic waves and planting "golfballs" containing a corn kernel surrounded by a chemical compound. These are two of the long-range predictions hazarded by agricultural engineer H.V. Hansen of Moline, Illinois.

Hansen, who is chief product engineer for the John Deere Planter Works, lists other possibilities for planting in 1975:

— zero tillage by killing all vegetation with chemicals either before or after planting, then metering

corn kernels into a very narrow trench

— a variety of corn that can be planted in ten-inch rows or by broadcasting

— a grain drill metering device to replace the corn planter seed plates, as sizing of seed corn becomes unnecessary

— sterilizing the soil electronically as it is "tilled" by fracturing with electronic waves.

Hansen said the change from 40-inch to 30-inch corn rows in the last 12 to 18 months had brought about the fastest change in planting equipment he has seen in 25 years of designing such equipment.

American Agriculturist, November, 1966

Livestock Mart



ANGUS

WYE PLANTATION FROZEN Angus Semen is available from P.R.I. proven sires officially gaining 4 pounds and more per day or whose 365 day weights are 1200 pounds and over. Wye Plantation, Queenstown, Maryland 21658. Telephones: 301-827-2041; 301-827-8143.

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MAPLE AVENUE FARMS in Earlville, New York invites you to inspect—Registered Angus females—in various selected age groups—weaned heifer calves—yearlings—two year olds.

BABY CHICKS

MARSHALL KIMBERCHICKS. Top quality eggs will always be in demand. The men who stay in the poultry business will be the ones who can produce highest quality eggs. Choose Kimberchicks for dependable high quality and profits by calling Marshall Brothers Hatchery, Ithaca, N. Y. AR 2-8616.

MEADOW VIEW CHICKS — Shaver Leghorns, Rapp Leghorns, Shaver Sex-links, Harco Sex-links, Lawton Buffs, Cornish Cross meat birds. Also started pullets. Henry M. Fryer, Greenwich, N. Y. 12834. Phone 518-692-7104.

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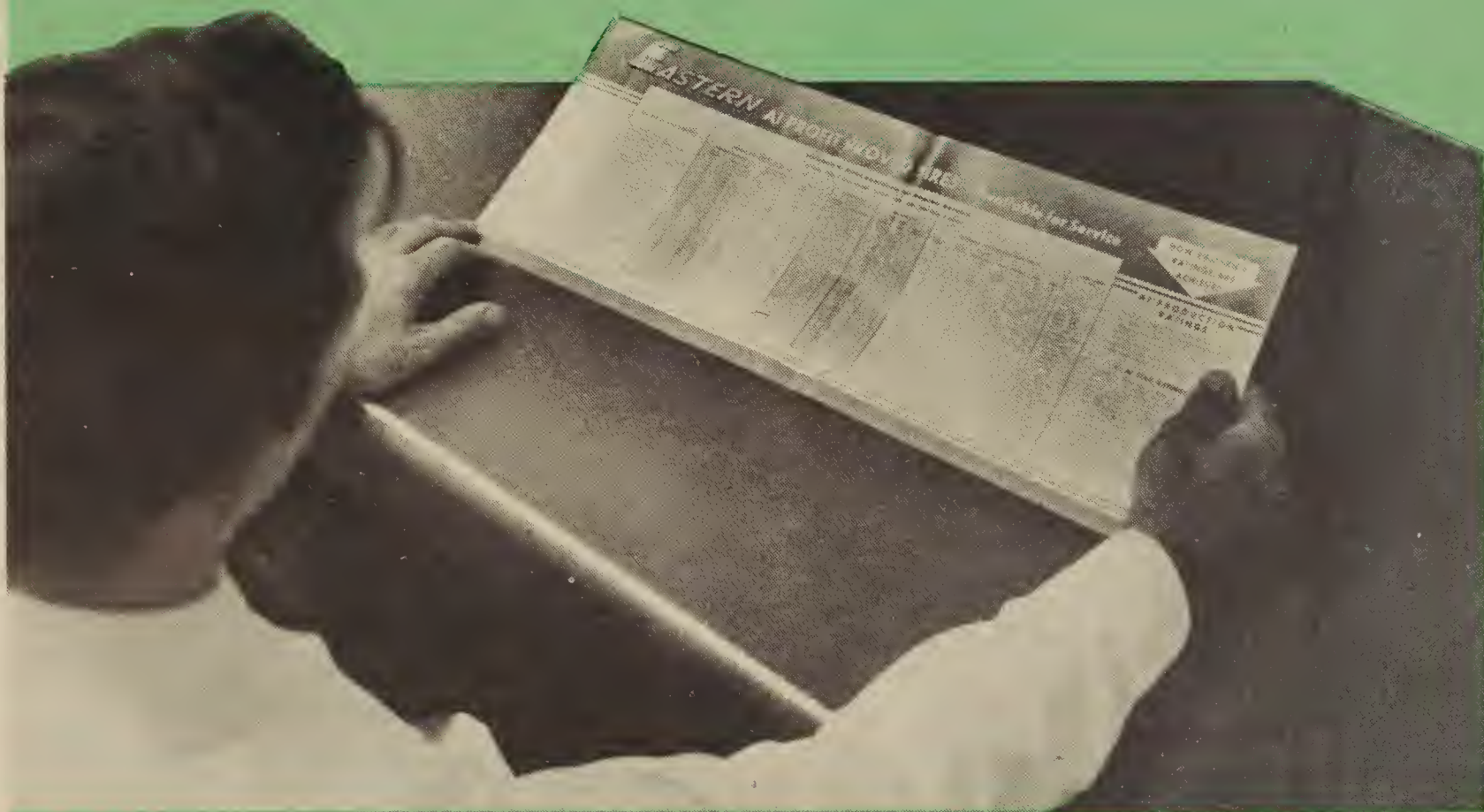
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NEW YORK DAIRY EMPIRE High-Income Record! 558-acre New York dairy setup comes with 85 milk cows, 23 heifers, bull, 8 milker units, 400-gal. cooler, 4010 diesel tractor, 3 other tractors, full line farming machinery, plus hay and silage at time of sale included! Owner reports \$60,000 income last year! 9-room farmhouse, 5 bedrooms, bath, vacant 6-room house. 50x180-ft. main barn, 20x100 tool shed with concrete floor, other buildings. 433 acres tillable for raising hay and cash crops, 100 acres improved pasture, good fencing. Successful retiring owner lets go for \$142,500, terms on part. Free . . . 168-page Fall-Winter catalog! Over 2,100 photos! Farms, ranches, homes, businesses, waterfront, vacation and retirement properties in 29 states Coast to Coast! United Farm Agency, 501-AA Fifth Ave., New York, N. Y. 10017. Area code 212; YUkon 6-1547.

American Agriculturist, November, 1966

FARMS WANTED

TO BUY: Stocked, equipped dairy farm. No down payment, pay off like rent. Box 369-LG, Ithaca, New York 14850.

HELP WANTED

DAIRYMAN WANTED. FULLY experienced in operating milking machines and caring for cows. Excellent housing for married man. Steady year round employment. Top wages and bonus. Garelick Farms, Franklin, Mass. 617-528-9000 days or evenings call Israel Garelick 617-528-1122.

WANTED: MAN, BOY or girl for general farm work. Russell Peters, Sr., Callicoon, N. Y.

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SALES—FIELD REPRESENTATIVES. Major Agricultural Chemicals Corp. Positions available in the Middle Atlantic States. To qualify a college degree in Agriculture is necessary. Submit resumé including salary requirements. Olin Mathieson Chemical Corp., Gay & Fallsway Streets, Baltimore, Md. 21202. Equal Opportunity Employer.

FARMER—with general farming experience, particularly raising feeder beef cattle and some fruit. Will pay reasonable good salary and provide a house. If interested, advise fully on experience, habits, age and size of family. Charles F. Colbert, Jr., 3881 Lower River Road, Youngstown, New York 14174.

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WORKMAN, ALONE-IN-The-World, Wants Country Cook-Bookkeeper. Box 369-KN, Ithaca, N. Y. 14850.

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MARRIED MAN To Work on 80 Cow Central New York Dairy Farm. Top Wages, Paid Vacation, Modern Apartment, heat and electricity furnished. Box 369-LD, Ithaca, N. Y. 14850.

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WANTED: MARRIED COUPLE. Husband to be Assistant Farmer on Nashawena Island, 12 miles off Cape Cod, Massachusetts. Work with sheep, cows, chickens, and vegetable garden. Also maintenance work. Pay \$235. per month plus half-house and utilities. No school available. Write Stephen Forbes, 105 Oakland Ave., Moylan, Pa. 19065.

SUBSTITUTE MOTHER. Unusual opportunity for mature, unencumbered, intelligent woman who loves children to care for two small girls (7 and 9) and run upper class Long Island suburban home for recently widowed father. Live-in situation. Excellent accommodations. Must drive car and handle light housekeeping. Ideal conditions. Salary to \$5,000. Highest references required. Write full background particulars to Box 369-LH, Ithaca, New York 14850.

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12 EXP. KODACOLOR — \$2.99 includes new film. Reprint 13¢. 12 exp. B&W—79¢. Hoosier Photos, Box 1405AA, Muncie, Indiana.

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GAME WARDEN, GOVERNMENT Hunter, Forestry, Park and Wildlife Services announce job openings regularly. Prepare at home for outdoor work, good pay, security. Complete information Free! Write North American School of Conservation-BH, Newport, California 92660.

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FOR TOPS IN Livestock Marketing—Regular weekly sales and farm auctions: Empire Livestock Marketing Cooperative.

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STOP ITCHING—Promotes healing of piles; psoriasis, eczema. "Roberts Reliable Salve" effective since 1888. Satisfaction guaranteed. 3 oz. \$1.00 postpaid. Roberts Pharmacy, Lisbon Falls, Maine.

QUICK-JOHN—Cleans septic tanks, cesspools, outdoor toilets. Stops odors, backups. Opens drains. 6 premeasured treatments \$2.95, 12—\$4.95. Money Back Guarantee. Rytter Co., Madelia 20, Minn.

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"SEPTIC PEPS-IT" for cesspools, septic tanks, dry wells, filter beds, outhouses. Prevents and corrects odors, backup. Keeps systems flowing. 6 months supply \$2.95. 1 year \$5.90. Electric Sewer Cleaning Co., Boston 34, Massachusetts.

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BARN CLEANERS—silo unloaders, engineered by Patz. New different bunk feeders, manure stackers, replacement chains for all make cleaners, low cost, easy terms. Nold Farm Supply, Rome, N. Y. Willard Howland, Southampton, Mass.

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LINCOLN WELDERS, GENERATORS, Seat Cushions, Rock Drills & Jiglers. Free Literature. Dan Hudon, Box 345, Barneveld, N.Y. 13304.

AUTOMATIC BALERS—100 to choose. 35 used hay conditioners \$150 and up. Haybine used 1 season, used Owatonna and IHC SP windrowers, 20 used rollabar rakes \$225 & up. 30 rotary & flail choppers, 25 field harvesters in 1 & 2 row heads, blowers \$100 & up. Forage wagons—set up yourself \$900 delivered. 125 crawlers & wheel tractors. Dismantling 5 acres for parts. Don Howard—Canandaigua, New York. AC, MF, Oliver, Ford, New Holland, Papee, Ontario Drills, Cobey, Brillion, Lamco, Farmec, Owatonna, Bush Hog, McCulloch & many others.

TRACTOR BUYS—5 John Deere crawlers—1 MC W/200 hours use. AC-D-17-550 hours, John Deere 3010-555 hours, Ford 6000-20 hours, Newfield 3-4 plow diesel—5 hours \$3500. Oliver 77 diesel \$1595. IHC MD diesel wide front—#1395, Minn. Moline 335 W/new loader—600 hours \$2150. Minn. Moline 445—1050 hours \$1585, Allis Chalmers WD W/wide front \$1095, D-15 like new \$2395. Don Howard—Canandaigua, N. Y.

WANTED — ALLIS CHALMERS Roto Balers. Brice Creesy, Andover, Ohio.

NOW HAVE OVER 100 Owatonna windrowers sold, very happy owners making green hay—even with rainy conditions and a new minimum of work. Can use your equipment in trade. Don Howard—Canandaigua, N. Y.

SHREDDER COMPOST GRINDER less 4 HP engine \$49.00; with engine \$99.00. Universal Mfg. Co., 324 West Tenth, Indianapolis, Indiana.

SPLIT ROCKS—2000 degree kerosene torch, 99 practical uses, general utility tool, destroys stumps, sprays, dries concrete. 800,000 users. Free literature. Sine, NY3, Quakertown, Pa.

SAW CHAIN

DIRECT TO YOU AT FACTORY PRICES!
Brand new, first quality, fully guaranteed! In .404", 1/2" and 7/16" pitch. Chain for bar of any saw with cutting length of:
12" to 14" \$10.00 15" to 16" \$11.00
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GUIDE BARS: New, hard-nose, to fit:
Homelite 17" \$17.00, 21" \$19.00
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SPROCKETS: Direct-drive sprocket \$4.00; Gear-drive sprocket \$2.50.
Add 50c to total order for shipping
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Be sure to give saw name, bar cutting length, and pitch used or number of drive links in chain.
Send check or money order today to:
ZIP-PENN INC. BOX 179-HD, Erie, Penna.
For big savings on other bars, saw parts, accessories, write for complete catalog.

NEW & USED EQUIPMENT

FARROWING CRATES—COMPLETE \$22.95. Free Literature. Dealerships Available. Dolly Enterprises, 180 Main, Colchester, Ill.

DISCOUNT PRICES NOW AVAILABLE! Savings to 75% on new, used parts for 250 makes, models, wheel, crawler tractors. Tremendous catalog. Send 25¢. Surplus Tractor Parts Corp., Fargo, N. D.

SOIL MOVERS—Carry-all Scrapers, Elevator Scrapers. Models in stock, 90E, 625RF, 425RF, 225RF. Wayne Wyant, New Bethlehem, Pa.

FOR SALE—POULTRY Equipment; reasonable. Box 369-LF, Ithaca, N. Y. 14850.

FOR SALE: FORD Forklift—Good condition—Reasonable—Phone 754-6629. Howard Johnson, Red Creek, New York.

POWER FAILURE — Emergency Protection with Portable Engine Generators Provide AC Current—3500 Watt Manual or Automotive* Start Optional *Automotive at Additional Cost. Larger Units Available for Hospitals, Schools and Institutions. John R. Hollingsworth Co., Phoenixville, Pennsylvania.

COMPLETE PORTABLE SAWMILL and Planer. Chester Nevinger, Warsaw, New York.

WANTED—OLDER TYPE stationary hay baler, Arthur Illenberg, Route 2, Middletown, N. Y.

ALL PARTS CHEAP, Cletrac AD, AG, BD, BG, CG, HD7, HD14, AC-K & L, TD18, TD14A, TD9, D2, D7, D8, also dozer units. Engines & Parts, GM371, GM471, GM671, Hercules, JXD, DOOC, Waukesha, D2, D4, D7, D8, TD9, TD14, TD18, and power units. Tracks & Rollers—D2, D4, D6, D7, D8, TD9, TD14, Oliver Cletracs. Carco & Hyster winches—\$250.00 up. Ben Lombardo, RD #2, Sinking Spring, Pa. (215) 944-7171, no answer 678-1941.

NURSERY STOCK

STARK BRO'S NEW 150th Anniversary Catalog Free! Spectacular full-color display of Giant-size Apples, Peaches, Nectarines (Fuzzless Peaches), Pears, Cherries, Apricots, Plums from Dwarf, Semi-Dwarf, Standard Size trees. Ornamentals, Roses, etc. Guaranteed. Stark, Dept. 30357, Louisiana, Missouri 63353.

PEACH, PLUM TREES—low as 20¢. Cherries, pears, apples, nut trees, strawberries, blueberries, dwarf fruit trees. Grapevines 10¢. Shrubs, evergreens, shade trees, roses 25¢ up. Quality stock can't be sold lower. Write for Free color catalog and \$2.00 Free bonus information. Tennessee Nursery Co., Inc., Box 1, Cleveland, Tenn.

20 WHITE BIRCH for only \$4.95—Seedlings, 18 to 24 inch. Bark turns white after 3 to 4 yrs. Makes graceful clump planted several together. Hardy. Postpaid at planting time. Send for catalog. Musser Forests, Box 83-KC, Indiana, Pa.

1000 NURSERY ITEMS — Evergreen—Tree Seeds, Seedlings, Shrubs, Trees. Horticultural-Propagation supplies. Catalog. Mellingers, North Lima 42, Ohio.

KELLY DWARF APPLES begin to bear heavy crops of giant fruits the year after planting. For orchard or family use. Largest fruit tree nurseries east of the Mississippi. Red Delicious, Yellow Delicious, McIntosh and others, also dwarf pears, peaches, plums, cherries. Specialists in strawberries, blueberries, grapes, hardy English Walnuts, chestnuts, pecans, etc. Choicest trees, roses, shrubs, ornamentals. Complete Spring Garden Guide and Nursery Catalog with 375 color photos free. Send name and address today. Kelly Bros. Nurseries, 967 Maple St., Dansville, N. Y. 14437.

PRINTING

BEAUTIFUL "Miniature Art Calendars" for Personal or Business Use! Imprinted, 4 lines, 15, \$2.00—Blank, 20, \$2.00—Send for Free Sample and "Bargain Bulletin." Llanerch Shop, 538-AR, Wales Havertown, Pennsylvania 19083.

RAW FURS

WANTED — RAW FURS — Mink, Muskrat, Otter, Beaver, Fox, Fisher, etc. Top Prices. Prompt returns. Walter A. Carr, 2868 Elm St., Dighton, Mass.

REAL ESTATE

FREE FALL-HOLIDAYS CATALOG! Big 180 pages! Selected Best thruout the U.S. Thousands of properties described, pictured—Land, Farms, Homes, Businesses—Waterfront, Recreation, Retirement. 66 Years' service, 490 Offices, 36 states Coast to Coast. Mailed Free from the World's Largest! Strout Realty, 60-R, E. 42nd St., N. Y., N. Y. 10017.

FOR SALE OR EXCHANGE for farm near water, or ocean—1 or 2 or 3 beautiful N. Y. Central Railway Stations in Westchester County, N. Y.—buildings and land. Large frontage on highways, strategic locations. Harold Bach, 82 Irving Place, New York, N. Y.

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REAL ESTATE WANTED

WANT TO SELL your farm, home, motel or other business or real estate for cash? Call or write, W. W. Werts Real Estate, Johnson City, N. Y.

SAWDUST & SHAVINGS

SAWDUST AND SHAVINGS in carload lots. Sawdust in bulk truckloads, also baled shavings. Bono Sawdust Co., 33-30 127th Place, Corona 68, New York. Tel. Hickory 6-1374.

SIGNS

PLASTIC POSTED—Land Signs. Durable, inexpensive, legal, free sample. Minuteman, Stanfordville, New York.

NO HUNTING SIGNS, Mailbox — Lawn Markers, Farm Signs, Special Signs, Printing all kinds. Sample catalog. Signs, 54 Hamilton, Auburn, New York 13021 Dept. G.

SILOS

SILOS, SILO UNLOADERS—barn cleaners. Nold Farm Supply, Rome, N. Y.

SPARROW TRAPS

SPARROWS EAT PROFITS! Get new, improved trap. Guaranteed satisfaction. Free particulars. Roy Vail, Antwerp 10, Ohio.

(Continued on page 36)

'ROUND the KITCHEN

with ALBERTA SHACKELTON

PORK HAS ALWAYS been one of our favorite foods, and there is more good eating than ever before in today's leaner and larger pork loin. It also provides more protein, minerals, and B vitamins per serving — and now with price reductions predicted, pork will be an even bigger bargain.

Along with this new-type pork, have come changes in cooking loin roasts. After extensive studies, Dr. Agnes F. Carlin of Iowa State University recommends that pork loin roasts, rolled or those with bone in, be roasted to an internal temperature of 170 F., rather than the earlier recommended temperature of 185 F. Roasts cooked to this temperature shrink less, are juicier, and have more flavor. (This new temperature does not apply to other cuts of pork. More studies are needed before a lower internal temperature can be recommended for these cuts.)

To prepare the Roast Pork Loin with Spiced Cherry-Almond Sauce shown in the picture: Sprinkle meat with salt and pepper. Stand loin (fat side up) on a rack in a shallow, uncovered baking pan. Place in center of preheated slow oven (325) and roast until well done, using timetable given below.

The use of a meat thermometer is recommended; insert it into the center of the thickest muscle. Baste meat with the sauce several times during last 30 minutes' roasting time and serve remaining sauce with meat.

To make Cherry-Almond Sauce: Combine a 12-ounce jar (about 1 cup) cherry preserves, 1/2 cup light corn sirup, 1/4 cup red wine vinegar, 1/4 teaspoon each — salt, nutmeg, ground cloves, and cinnamon — and dash pepper. Bring to boil and boil one minute; add 1/4 cup slivered, blanched almonds.

New Type Cake

The following Sesame Crusted

Cake won a coveted Blue Ribbon in the Creative Cooking Contest at the New York State Exposition. It was judged the most unusual cake using spices and/or sesame or other seeds. Here is the recipe as Blue Ribbon winner Mrs. Corinne M. Bridge, Route 2, Marcy, New York, presented it.

SESAME CRUSTED CAKE

Sesame Crust

1/3 cup butter
1/2 cup brown sugar, packed
3 tablespoons flour
2 tablespoons sugar
1/2 cup coconut
1/4 cup sesame seeds

Cake

1/2 cup butter
1 3-ounce package cream cheese
3/4 cup sugar
2 eggs
1 1/2 cups sifted flour
1 1/2 teaspoons baking powder
1/2 teaspoon salt
1/4 teaspoon mace
1/4 cup milk
1 teaspoon vanilla

Crust: Combine all ingredients and mix well. Reserve 1/4 cup of this mixture. Press remainder onto sides and bottom of a well greased pan, 9 x 5 x 3 inches. Chill while preparing cake.

Cake: Cream butter and cheese together; gradually add sugar and cream until light and fluffy. Add eggs, one at a time, beating well after each addition. Blend in half the dry ingredients which have been sifted together; then the milk and vanilla, and remaining dry ingredients. Pour into pan.

Add 2 tablespoons sesame seeds to remaining topping, mix well, and sprinkle over cake. Bake in a slow oven (325) for 60 to 70 minutes, or until cake is golden brown and springs back when lightly touched. Cool 10 minutes in pan. Remove from pan and cool completely upside down.

Note: 1 teaspoon grated orange rind may be added when creaming butter and cream cheese.



* Photo: American Meat Institute

Pork loin roast, glazed and served with cherry-almond sauce, is elegant for very important guests, yet inexpensive enough for family meals.

ROASTING DIRECTIONS — FRESH PORK ROASTS

(American Meat Institute)

Cut	Weight	Approx. Roasting Time	Internal Temperature
Leg (fresh ham — whole)	8 lbs.	4 1/2 hours	185 F.
	10 lbs.	5 1/2 hours	185 F.
	14 lbs.	6 1/2 hours	185 F.
Leg (fresh ham — butt or shank portion)	4 to 6 lbs.	3 to 3 1/2 hours	185 F.
Loin, center	3 to 5 lbs.	2 1/4 to 2 3/4 hours	170 F.
Loin, half loin	4 to 6 lbs.	2 2/3 to 3 1/2 hours	170 F.
Loin, end	3 to 4 lbs.	2 1/4 to 2 2/3 hours	170 F.
Shoulder (butt portion) bone in	4 to 6 lbs.	3 3/4 to 4 1/4 hours	185 F.
Shoulder (butt portion) boneless	4 to 6 lbs.	3 to 4 3/4 hours	185 F.
Shoulder (picnic), bone in	4 to 6 lbs.	3 to 4 3/4 hours	185 F.

Turkey Dividends

Such good dishes can be made with left-over turkey, and it is such a convenience to have frozen turkey in the freezer that you may want to buy a larger bird this year.

After the holiday meal, remove any left-over dressing from the bird and refrigerate dressing and turkey carcass separately until completely cooled. Plan to use dressing promptly. Remove meat from carcass with a good sharp knife, sorting pieces into slices, large chunks, and small pieces. Pack each lot separately in freezer containers.

To prevent turkey meat drying out, you might wish to almost cover the meat with cooled canned chicken broth or turkey stock made from carcass. Seal, label, and freeze promptly.

Turkey Chowder: Partly cook 2 slices chopped bacon; add a little chopped onion and cook until onion is tender and bacon browned.

Cook 1 cup diced celery, 2 cups cubed potatoes, and 1 cup diced, cooked turkey in 3 cups turkey broth until tender. Add 1 cup whole kernel corn, cooked bacon and onion, and 2 tablespoons chopped parsley. Thicken with 2 tablespoons flour mixed with 1 cup milk, stirred in and brought to boiling.

Turkey Roll-Ups: Make your favorite baking powder biscuit dough, using 2 cups flour. Knead dough lightly on a lightly floured board and roll into an oblong about 9 x 18 inches and 1/8 to 1/4 inch thick. Spread with a mixture of 1 1/2 to 2 cups turkey bits

and small pieces, 1 tablespoon minced green onion and 1 teaspoon minced onion (if desired), and enough chicken or turkey gravy to moisten.

Roll up tightly, starting at wide side. Seal edge and cut into 1 1/2 inch slices. Place slices, cut side up, on well greased pan, about 1 inch apart for crisp sides. Bake in hot oven (425), 15 to 20 minutes. Serve with hot gravy, cream of mushroom soup thinned to desired consistency, or creamed mushrooms; sprinkle with parsley. Allow 2 slices per serving.

The Kitchen Bookshelf

Cheese In Family Meals — HG-112. Includes ideas, recipes and helpful hints on choosing, storing, cooking and serving cheese.

Money-Saving Main Dishes — HG-43. A general food guide with suggested menus and new recipes for thrifty, tasty main dishes.

Poultry In Family Meals — HG-110. Buying and storage hints; recipes.

Single copies of the above U.S.D.A. bulletins are free by sending a postcard request (include name, address and zip code) to: Office of Information, U. S. Dept. of Agriculture, Washington, D. C. 20250.

Feeding A Crowd: Vol. 1, How To Take It In Stride; Vol. 2, The Main Course. 50 cents each.

Send 50 cents for each booklet desired with your name and address to: General Foods Kitchens, Dept. MA, 250 North St., White Plains, N. Y. 10602.

American Agriculturist, November, 1966



HERITAGE

by Edith Shaw Butler

The timeless hills rest in the Autumn sun.
The valley fields are harvested and bare.
The last red leaves have fallen one by one
To make the winter cloak the woodlands wear.
Man looks content upon this quiet earth,
Knowing the land he loves has

served him well;

Knowing its age-old promise and its worth,
His acres hold him by an ancient spell.

Though earth may rock with tumult
and with storm,

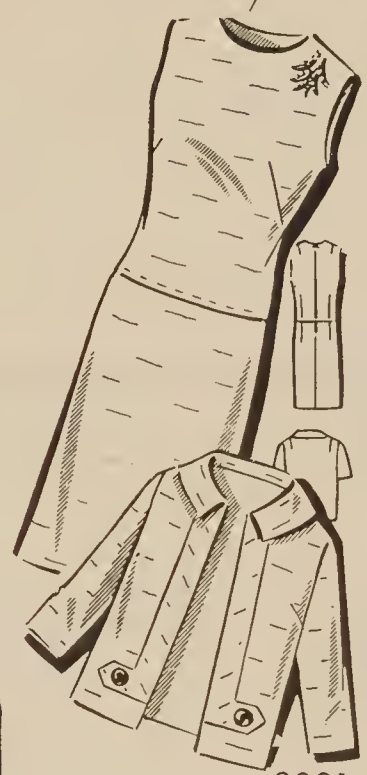
It always waits the planting time again,
The patient seed, the quickening life to form,
The upward thrust, the touch of sun and rain.

Akin to all the tillage of the past,
Man comes to know his heritage at last.



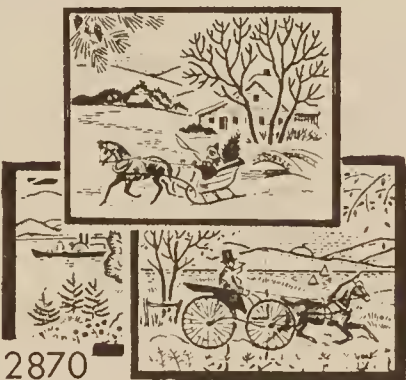
8178. Keep well groomed in this clever, easy-to-sew cover-up. Sizes small (10-12), medium (14-16), large (18-20). Medium, 1½ yards 35".

8331. Trim companions are styled perfectly to fit the half-size. Sizes 12½ to 26½. Size 14½, 35 bust, dress, 3 yards of 35"; jacket, 2½ yards.



8178
Small-Medium-Large

8331
12½-26½



2870. Capture the beauty of the four seasons with these lovely panels inspired by Currier and Ives prints! They take so well to a bright assortment of colors and are easy to make in simple stitches. Pattern No. 2870 has hot-iron transfer for four designs; color chart.

WITH THE NEW
PATT-O-RAMA



2893

2893. Embroidered duck motifs perk up a set of handy towels for the kitchen rack. Pattern has hot-iron transfer for 7 designs; color chart.



15 INCHES

2909

2909. Easy smocking on gingham adds a lovely touch to a cute turtle pajama bag for the youngsters. Comes with pattern pieces; sewing and smocking directions.



5165 EASY TO CROCHET SIZES 36-44

5165. He-man styling—a cardigan in single crochet and tweedy yarn has elbow patches for extra wearability. Crochet directions for sizes 36, 38, 40, 42, 44 inclusive.

2980. Surprising upside-down dolly will delight all the little girls. It's an ideal gift that is so much fun to make. Pattern No. 2980 has pattern pieces; full directions.



2980

5192. A showpiece of handiwork, this Hit-and-Miss quilt is simple to make with left-over scraps. The fascinating design can be machine or hand stitched. Pattern has complete directions.



5192

PATTERNS are 35c each. Add 10c per pattern for 1st-class mailing. Send orders, with coin, to: AMERICAN AGRICULTURIST, Pattern Dept., Box 220, Radio City Station, New York, N. Y. 10019. Write name, address, zip code, pattern number and size clearly.
Send 50c more for the latest issue of our pattern magazine Basic FASHION. Every pattern features our exclusive Photo-Guide. Also, our Needlework ALBUM is filled with a wealth of handwork designs. Send 50c for your copy.

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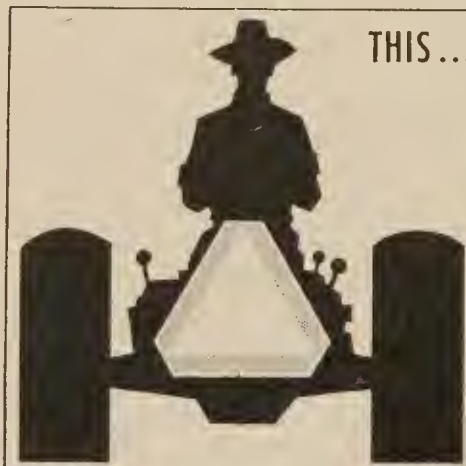
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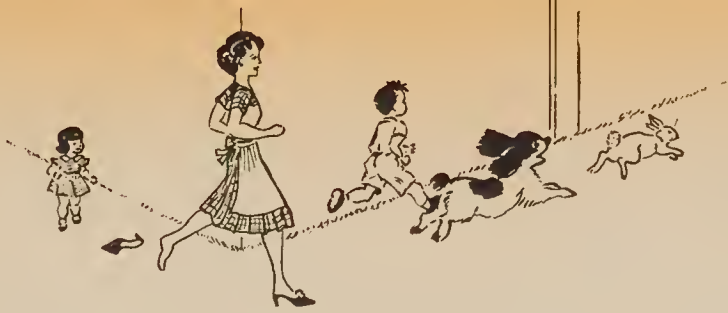


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JUST A HOUSEWIFE . . .

by Burgess Lawrence*

HAVE YOU EVER wondered, maybe when you were up to your elbows in a sink full of dishes, if it wouldn't be nice to do something else? Well, at times I have. And I've watched friends stay home with their chores and seethe inwardly, while others have taken off their aprons and gone on to what they considered better things. I've thought about this a good deal, and have come up with some observations which I'm sure will tide me over a time I might be tempted to "take a header" and find a job away from home.

I guess we all like to make the most of our abilities, so perhaps it is a happy sign if we want to take on a little more than just housekeeping, and to explore the larger areas that lie within our grasp. But first things first! And here I am with a job already — a family who needs all my abilities, as well as my enthusiasm and interest in their lives.

Homemaking is itself a career and a mighty satisfying one too! I've never done anything that I enjoyed as much as working and playing with our children and watching them grow.

Happiness Is

Family happiness is such an accumulation of little things, and one of the nicest features of being home during these pre-school years is that we all have time for each other. My toddler came up to me the other day with a book almost as big as he is, and unmistakably said for the first time, "Wead a tory." I took him on my lap and watched his eyes grow big as he listened to the adventures of "Goldilocks and the Three Bears."

I have time to take him and his sister to look at the piggies and throw them scraps of apple; we try to coax the chipmunk from his hideaway under the shed, but he won't come until we are out of sight. And if we catch another glimpse of him, it's with tilted head and tail erect, rigid and fearful, ready to disappear if we return.

There's time to make the wonderful home-baked breads that my family loves and time to perch on the kitchen stool and talk over the day's events with our eight-year old when he comes home from school.

What am I trying to say? Only that homemaking is a lot of fun and that it is more to me than just housekeeping. It is a real satisfaction to be involved in this career which includes my husband and our three children. And right now I don't want to turn my attention elsewhere.

Usually I can count on an interesting day right here at home too — like the time the rabbit got

loose! My son has a bunny which is kept in a large wire pen outside. Early one morning this rabbit got out, the dog saw him, and they were off. Our son took this pretty seriously and raced to the house, so I dropped what I was doing and dashed out to attempt a rescue operation. Imagine if you can, in this order, one scared rabbit, the dog, my son, me in bedroom slippers, our small daughter . . . all in single file, but at high speed, circling the barn two or threetimes! Finally, the poor animal took refuge in some rose brambles while we sailed around still another time.

When we came to a stop, out of breath and panting, it occurred to me that we must have been quite a sight. And I had no idea that anything was going to happen between the corn flakes and the eight o'clock news! In each day there are laughs, the tedium of chores, success and disappointment . . . in short, life itself.

I've come to think a wise mother is the one who attends to the real needs of her family, enjoys the day-by-day happenings with them, and then uses the rest of her time in whatever way is most satisfying to her. If you find that what you enjoy most is to scrub things until they glisten, or to make wonderfully light cakes for your family, you have found a vocation. But why apologize for it if you would rather play the piano than polish the silver, or attend an interesting meeting than make a cake, or fit in a part-time job if that is what you truly like best?

Homemaking is a fine job in itself, so why replace it? Instead, let's enhance it with additional interests — projects and dreams for the future that include everyone in the family and which give all a chance to be happy, useful individuals.

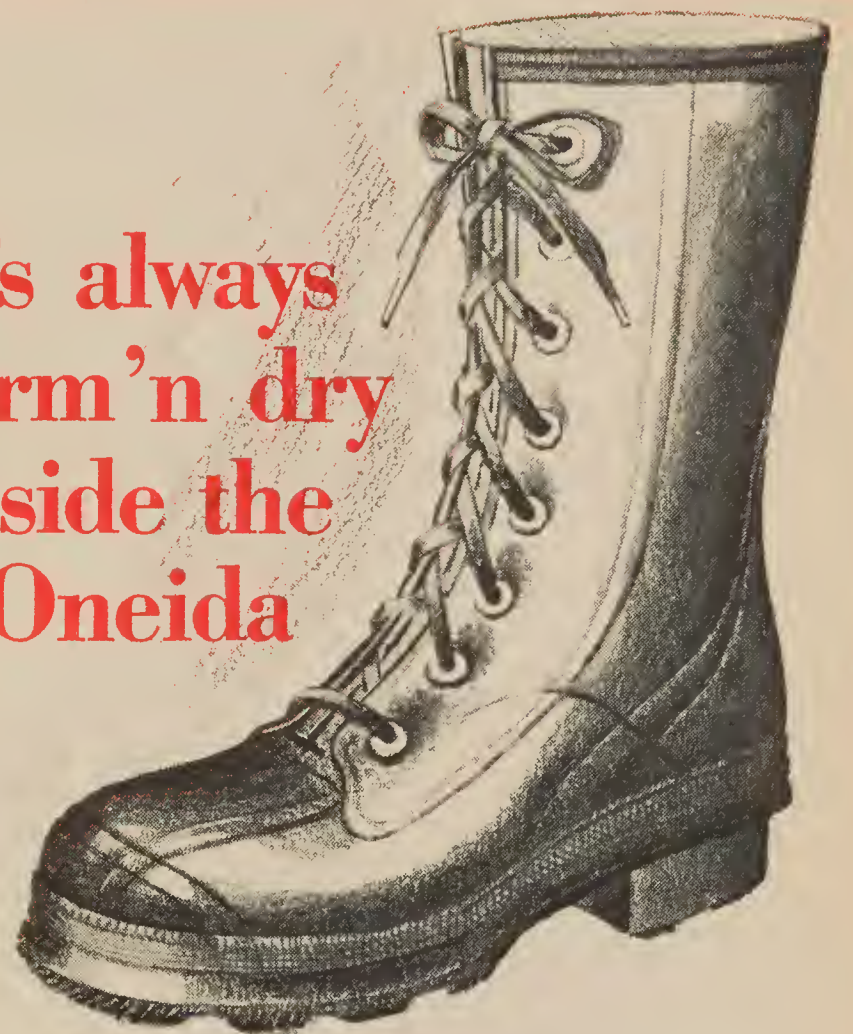
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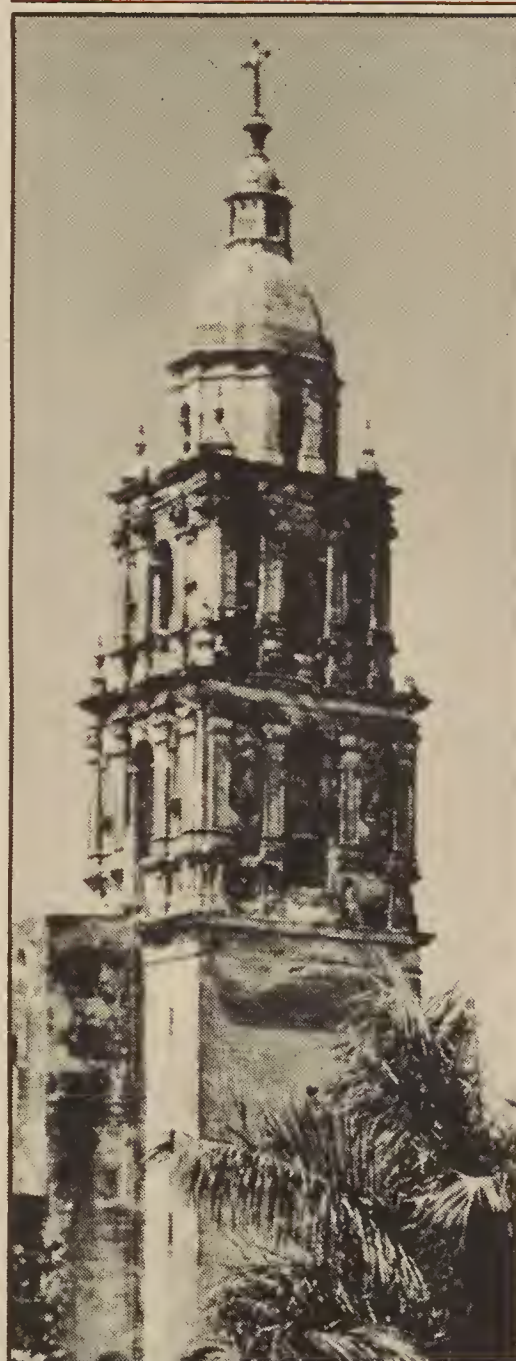
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ED EASTMAN'S PAGE

VOTE "NO"

New York State voters will be asked at this election to approve or disapprove a lottery. Gambling is against the law and it is immoral. In effect the state is asking you to break its own law. I hope you will vote a great big NO.

SHEEP STONES

Mrs. Anne C. Holst of East Greenwich, Rhode Island, writes, "Rocks are the things which I have the most of on my farm. But while cursing them I have really become fascinated with the many uses people have found for them over the years — such as millstones, cider-press-bases, lye or leach stones, milestones, and stones for a stone wall fence. But recently I saw some sheep stones."

Now I like to puzzle you on this page occasionally so I'll bet that not many of you can tell what sheep stones were. I will give the answer on this page in an early issue.

Mrs. Holst also writes an encouraging word about how much she likes my book, "Journey to Day Before Yesterday". She says, "You bring to today a touch of yesterday that means an awful lot to me."

One of the greatest compensations one can get out of life is the knowledge that he is helping the people who travel with him over the rough places.

IT IS LATE

Inflation is rapidly growing worse. The buying power of your dollar grows less each day.

Taxes are the highest ever and are fast growing higher.

The cause of both these evils is government extravagance. Government leaders . . . local, state and federal . . . vie with one another to spend and spend and spend.

Some of the spending is, of course, necessary. Much is not, or could be delayed until there is money to pay for the projects.

When you are short of money you pull in your belt and go without everything except essentials. When government is short it levies more taxes, more of your money.

I am all for new projects, but not when they lead to financial ruin. Why, for example, all the hurry and the billions to get to the moon? Is it really to get there or "to keep up with the Jones's" (the Russians)?

For another example, why all the billions for the anti-poverty campaign to help people — many

of whom won't help themselves? Let's help those who really need it but slow it down and go carefully. The same goes for many other projects.

Pay as you go and avoid debt as you would avoid the devil.



Thanksgiving Prayer

We know, God, that that little band of Pilgrims who sat down to the first Thanksgiving dinner in the fall of 1621 had few material blessings for which to be thankful. We know, Father, that of the 102 on the Mayflower 44 . . . nearly half . . . died of disease and privation during that first awful winter after they landed in 1620. We know that all of them would have died in the next year if it had not been for the friendly Indians who showed them how to hunt and how to grow corn. The Pilgrims indeed had little for which to be thankful.

Deep in our hearts, Father, some of us at least, realize that no people on this earth have more to be thankful for than we Americans in this year of 1966.

But sadly we acknowledge that the Pilgrims were more appreciative than we are. It would

seem that appreciation is inversely proportional to what we have, the more we have the more we want, and the less grateful are we for it.

So, God, we come to you on this Thanksgiving Day and on all the days and years to come for help to appreciate all our material blessings and, what is much more important, to ask for Your help to realize the need in our own lives of those same qualities of the spirit which will make the Pilgrims remembered as long as time endures. Help us, God, we pray you, to be grateful to you, more appreciative and less critical of our loved ones who do so much for us, of our friends who help to make life more endurable and for America, our country which is, with all of its faults, the greatest in the world.

TURN CALENDAR BACK

It is too bad that the stories of the way our fathers lived and worked are being lost, for they are a most important part of our history. Because there have been so many changes in the last fifty or seventy-five years, young people have no idea of what life was like in the horse and buggy days.

No one, of course, really wants to turn the clock or the calendar back to day before yesterday. If we could and did, we would wish mighty soon that we had a return ticket back to now.

Nevertheless, it is fun sometimes to dream about our youth and the happy times most of us had then and it is interesting to young people to know what life was like when grandpa was a boy.

That is the reason I wrote the book "Journey to Day Before Yesterday," first to bring back your happy memories and second to record stories of the ways our fathers worked, lived and had fun, before these stories are lost.

That the book fills a need is shown by the big response. Every mail bring more and more orders.

After readers read a copy, they think, "How my father or mother or friend would love this book." So they immediately order a copy, or copies, for presents. Perhaps the book will solve your Christmas present problem.

You can get a copy of "Journey to Day Before Yesterday" beautifully bound and illustrated by old-time pictures by sending your order with check or money order for \$5.95 (plus twelve cents tax in New York State) by writing American Agriculturist Dept. Book, Savings Bank Building, Ithaca, N.Y.

WHY NOT?

Almost every time I pick up a newspaper I read of a disastrous farm fire. More often than not it is caused by a defective or overloaded electric wiring system.

Each year we are increasing the load on our wiring system, often beyond what it was designed for in the first place.

Would you sleep better nights if you were absolutely sure that your wiring system was safe? Why not have it thoroughly checked?

Have some consideration for the producers who have to raise the money the government spends. Have some consideration for those who will follow us, whom we are leaving with a financial burden that they may never be able to throw off.

It is a lesson of history that when people get mad enough they do something about it.

How mad are you?

IT IS GETTING LATE.

legge there is a tremendous amount of reading to do. Far more than most young people have ever done before in their lives and unless they can read and understand fast they soon get behind and discouraged and dropped out of college.

The time to learn to read is from your earliest years.

The place to learn to read is in the home.

The how to read comes from practice at every spare moment.

Most children don't read much any more except for comics because the time is taken with so many other activities, like record playing, television, automobiles and social events.

When I was young there was not much else to do for recreation except to read. The two best ways to teach children to read are, one — surround them with plenty of good magazines and books, and second — set the example by reading yourself.

There is a wonderful world of books and those who discover it will add many happy and profitable hours to their lives.

WHAT ABOUT IT?

Every fall as I ride about the countryside, I am always a little saddened by the number of rural homes whose beauty is ruined by unnecessary clutter, trash of almost every kind and description.

We are told that the environment in which a child is reared during the first ten years of his life influences him for better or worse all the rest of his life. One of the chief reasons why it is good to rear children in the country is to surround them by all manner of growing things and a beautiful country landscape, all of which is lost around so many rural farms and homes because of trash which could be cleaned up in a few hours of work.



EASTMAN'S CHESTNUT

Unfortunately for farmers, and I think for America itself, the farm vote is growing less and less in numbers because of the rapidly decreasing number of farms. Dairy farms have decreased one third in New York State since 1959.

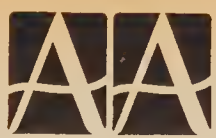
However, it was not so long ago that all political candidates tried to make every kind of appeal for the farmers' vote and whenever the candidate could, he always talked about being a farmer himself, though he probably had not done a stitch of farm work in thirty years.

Here's a story that hits that nail squarely on the head.

The candidate was making a political speech to a farm audience. "I'm a practical farmer," he shouted, "and in sympathy with farmers. I can plow, reap, milk cows, in fact I doubt whether any of my hearers can name one single thing about a farm that I cannot do."

Voice from the back of the hall, "Can you lay an egg?"

American Agriculturist, November, 1966



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NEW YORK

Mr. Harry A. Phillips, Wayne (refund on plants)	\$ 2.35
Mrs. Ellen Jane Overly, Watkins Glen (refund on keets)	8.85
Mrs. Dennis O'Dea, Kirkwood (refund on chicks)	.94
Mr. Wm. D. Hakala, Cambridge (refund on boat)	65.02
Mr. Harry Edick, Little Falls (refund on order)	166.50
Mr. Ray Haggerty, Philadelphia (refund on clothes)	5.19
Mr. Lawrence Polczynski, Utica (refund on order)	87.00
Mrs. Mary Green, Medina (payment for eggs)	825.45
Mr. Leroy Frasier, Fort Plain (refund on order)	87.00
Mrs. Vera Stalker, Norwich (refund on order)	4.40
Mr. David H. Lewis, Chester (refund on seat covers)	19.86

PENNSYLVANIA

Mr. Clayton Horst, Reinholds (payment on bad check)	15.00
Mrs. A. V. Bair, Lower Burrell (refund on order)	8.95
Mrs. Ruth White, Springville (refund of premium)	193.25

MAINE

Mr. Stuart Record, Livermore Falls (refund on radio)	69.00
Mr. Donald Webster, New Sharon (refund on order)	4.25

NEW HAMPSHIRE

Mr. Guy Cochran, Meredith (refund on brake cables)	15.00
Mr. Joseph Lamirande, Claremont (refund on order)	4.95

VERMONT

Mrs. Malcolm Piper, So. Royalton (refund on chicks)	188.75
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CONNECTICUT

Mr. Arthur J.J. Lyon, N. Grosvenordale (overcharge refund)	2.00
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THEFT REWARD

A \$25.00 reward check has been sent to our subscriber, Mr. Earl Warner, R. D. 1, Montrose, Pennsylvania. On January 4, 1966, two men and a woman, pretending to be magazine salesmen, called at the home of the Warners.

While the woman talked in the greenhouse with Mrs. Warner about magazines and plants, the men bound Mr. Warner's hands and feet, gagged him and covered his head with a coat. They proceeded to ransack the house, took a collection of rare coins as well as Mr. Warner's social security checks for December and January, and left in a brown station wagon.

After they had left, Mrs. Warner found her husband where he had been thrown into a corner. The phone wires in the house had been cut but Mrs. Warner notified the State Police at New Milford from a phone in the greenhouse. Corporal Charles Davis and Trooper Ronald Cranage investigated.

Subsequently, the three culprits were caught and, according to Sheriff Carl Johnson of Susquehanna County, they received sentences ranging from not less than 6 months to not more than 5 years.

DO YOU RECALL?

"This may seem like an odd request but could you kindly tell me how many seats were in the old Toonerville Trolley? This comic strip has not been seen by me in at least 15 to 20 years, but this is why I ask. My brother, now stationed in Viet Nam, plays a game they call 'Do You Recall?' with other service men and the object is to try to remember old American Agriculturist, November, 1966

comic strips, movies, etc. For instance, someone might ask, 'Who was Buck Roger's girl friend?' or 'What was the name of Tillie the Toiler's boss?' So far, the Toonerville Trolley has everyone stopped cold, no one can remember. When my brother wrote me and mentioned this I immediately tried to find out.

"If you would have by chance an old picture of the Toonerville Trolley or would know the answer as to how many seats it had, I would appreciate hearing from you."

Gordon Conklin, our editor, wrote to a friend at King Features Syndicate to ask if he could help in answering this unusual request. We were told that, although Fontaine Fox did not work for King Features, his Toonerville Trolley was well known throughout the industry. It is our understanding the trolley accommodated six people. There was a bench on each side which held three people. Also there were three windows on each side.

Our subscriber has forwarded this information, together with a drawing of the trolley, to her brother, and we hope it will bring pleasure to him and his friends. We are printing her letter in the belief it may be of interest to many readers as well as a relief from the many warnings and complaints with which we usually fill these columns.

WHOSE DOLLAR?

Late in September we received a one dollar bill in an envelope postmarked Winthrop, Maine. There was no name or address in or on the envelope. We assume it was for a one-year subscription. With about 700 families in Winthrop and 549 more on the Winthrop R.D.'s, we're stuck. Can you help? To eliminate any jokers who may claim it, please tell us what the dollar bill had around it.

Inquiries and letters to the Service Bureau should be addressed to Service Bureau, American Agriculturist and the Rural New Yorker, Box 370, Ithaca, New York.

ADDRESSES WANTED

Oralie Dorothy Robichard, whose last known address was Saugus, Mass.

Mrs. M. J. McLain, who at one time lived on Baldwin St. in Cambridge, Mass.

Any descendants of Henry and Emma Reakes Bell, who came from England and settled in Truxton, N. Y. about 1910.

WHILE HUNTING DEER with his brother, Mr. Paul Dygert of Poland, N.Y. was shot in the right hip by a 30-06 from an unseen hunter. Laying in snow he unloaded his rifle. His brother came to see the cause of the shots, then went for help. Rushed to the hospital by ambulance Mr. Dygert stayed there 58 days recovering from a fractured hip and internal injuries.



Receiving a \$1060.00 North American check from local agent Ellis Smith of Richfield Springs, N.Y. Mr. Dygert gave this letter of thanks.

I sincerely appreciate the payment of my claim with your company in the sum of \$1060.00 and wish to thank your agent Ellis Smith for calling on us.

Yours truly
Paul Dygert

A friend's name may be in this list.

Oscar B. Butler, Rushford, N.Y.	\$ 577.05	Howard King, Sr., Elbridge, N.Y.	\$ 313.91
Fell from truck—broke knee		Fell from sawhorse—broke ribs	
Fred Krueberg, Corbettville, N.Y.	658.46	Francis Herendeen, Macedon, N.Y.	511.50
Hit by hay bale—inj. back, neck, ribs		Caught in windrower—injured hand	
Duane Buman, Nineveh, N.Y.	267.85	Jesse Wolfe, Kendall, N.Y.	472.30
Attacked by cats—bitten hand		Auto accident—back and chest inj.	
Ruth Keller, Conewango Valley, N.Y.	171.14	Charlotte Mead, Richland, N.Y.	1452.00
Caught in hay baler—broke foot		Knocked down by cow—injured arm, shoulder	
William Isiodori, Randolph, N.Y.	247.28	Mark Mahardy, Richfield Springs, N.Y.	1325.00
Slipped and fell—broken arm		Hit by falling limb—broken back	
Hollis Tucker, Auburn, N.Y.	485.85	Gertrude Brenenstahl, Petersburg, N.Y.	260.00
Fell from hay load—broke wrist		Slipped on rug—broke wrist	
John Young, Union Springs, N.Y.	240.00	Margaret Brown, Gouverneur, N.Y.	438.34
Thrown from tractor—cuts and bruises		Fell from tractor—broke rt. ankle	
Frank Gatto, Jamestown, N.Y.	1335.28	Robert Meashaw, Potsdam, N.Y.	154.29
Hit by large piece of steel—head inj.		Fell from roof of house, multiple inj.	
Susie Hartman, Elmira, N.Y.	1044.01	Martha T. Dayton, Stamford, N.Y.	850.70
Caught in rug—broken foot		Slipped off ladder—broke leg	
Elbert Moyer, Greene, N.Y.	1662.27	Harry Warne, Romulus, N.Y.	426.31
Tractor accident—inj. head, broke arm		Thrown from combine—injured back	
Stephen T. Duso, Plattsburgh, N.Y.	713.95	Ray Risley, Rathbone, N.Y.	809.85
Fell downstairs—injured back		Struck by flying board—broke leg	
Theodore Law, E. Free-town, N.Y.	234.28	Charles Garman, Bath, N.Y.	157.58
Hit by falling timber—inj. head		Using table saw—cut fingers	
Laura Turner, Davenport, N.Y.	307.14	Gene A. Walter, Divine Corners, N.Y.	186.42
Auto accident—multiple cuts & bruises		Kicked by cow—broke hand	
Gordon J. Smith, E. Concord, N.Y.	589.72	Barbara Bialeski, Cutchogue, N.Y.	372.11
Pinned by tractor—inj. knee		Tripped and fell—broke toe	
Blanche Santimaw, Saranac, N.Y.	270.42	Lochary VanKirk, Newfield, N.Y.	334.39
Auto accident—broke rib, inj. back		Fell on hay elevator—broke ribs	
Luke Palmer, Chateaugay, N.Y.	376.61	Frank Stapan, Newfield, N.Y.	244.56
Truck accident—inj. arm		Hit by baler trip arm—inj. chest, arm	
Robert F. MacVean, Johnstown, N.Y.	106.43	Leon Soudan, Walworth, N.Y.	350.70
Fell off tractor—injured leg		Cranking tractor—broke arm	
Bert Amend, Corfu, N.Y.	174.86	Jay Thorn, Clyde, N.Y.	858.46
Caught in pulley—broke finger		Auto accident—head injuries	
George E. Rowan, Herkimer, N.Y.	421.15	Read F. Eberstein, Perry, N.Y.	222.86
Grading machine tipped over—multiple inj.		Rammed by heifer—broke finger	
Carl Bates, Lorraine, N.Y.	563.40	Mary Rice, Mansfield, Pa.	334.09
Fell through roof—injured shoulder		Fell thru barn floor—broke rib	
Richard Brown, Adams Center, N.Y.	151.40	Elizabeth L. Ward, Sylvania, Pa.	245.57
Caught in gears—injured hand		Ran into clothes shoot—injured ankle	
Arthur Burnham, Glenfield, N.Y.	893.60	Lewis Van Ord, Jr., Russell, Pa.	566.97
Hit by tree—broke leg		Fell from scaffold—chest injury	
Loran Lee, Lowville, N.Y.	262.28	Mary Lou Blystone, Edinboro, Pa.	313.55
Fell off barn roof—broke leg		Serving volley ball—inj. hand	
Robert Beecher, Livonia, N.Y.	534.05	Angel Colon, Monroeville, N.J.	1143.25
Hit by steel rod—inj. eye		Thrown from farm truck—broken leg	
Millicent Smith, Eaton, N.Y.	822.23	Elliott Bell, New Egypt, N.J.	350.00
Pushed by calf—injured leg		Tractor upset—internal injuries	
Ben Smith, Rochester, N.Y.	531.42	Matilda Roseberry, Washington, N.J.	651.42
Tripped and fell—broke ankle		Car accident—multiple cuts & bruises	
Delphine Going, Randall, N.Y.	2250.00	Chester Steiner, Greenfield, Mass.	339.50
Auto accident—multiple injuries		Truck accident—multiple injuries	
Lawrence Lederhouse, Ransomville, N.Y.	183.55	Duane Litchfield, Wells, Maine	138.00
Caught between tractor, cleaner—broke arm		Cranking tractor—broke wrist	
Marion Bartlett, Lee Center, N.Y.	272.71	Harold Colby, Sr., Penacook, N.H.	517.46
Caught in pulley—injured finger		Log binder loosened—broke jaw, cut face	
		Gordon McGann, Poughkeepsie, N.Y.	186.50
		Kicked by cow—injured back	

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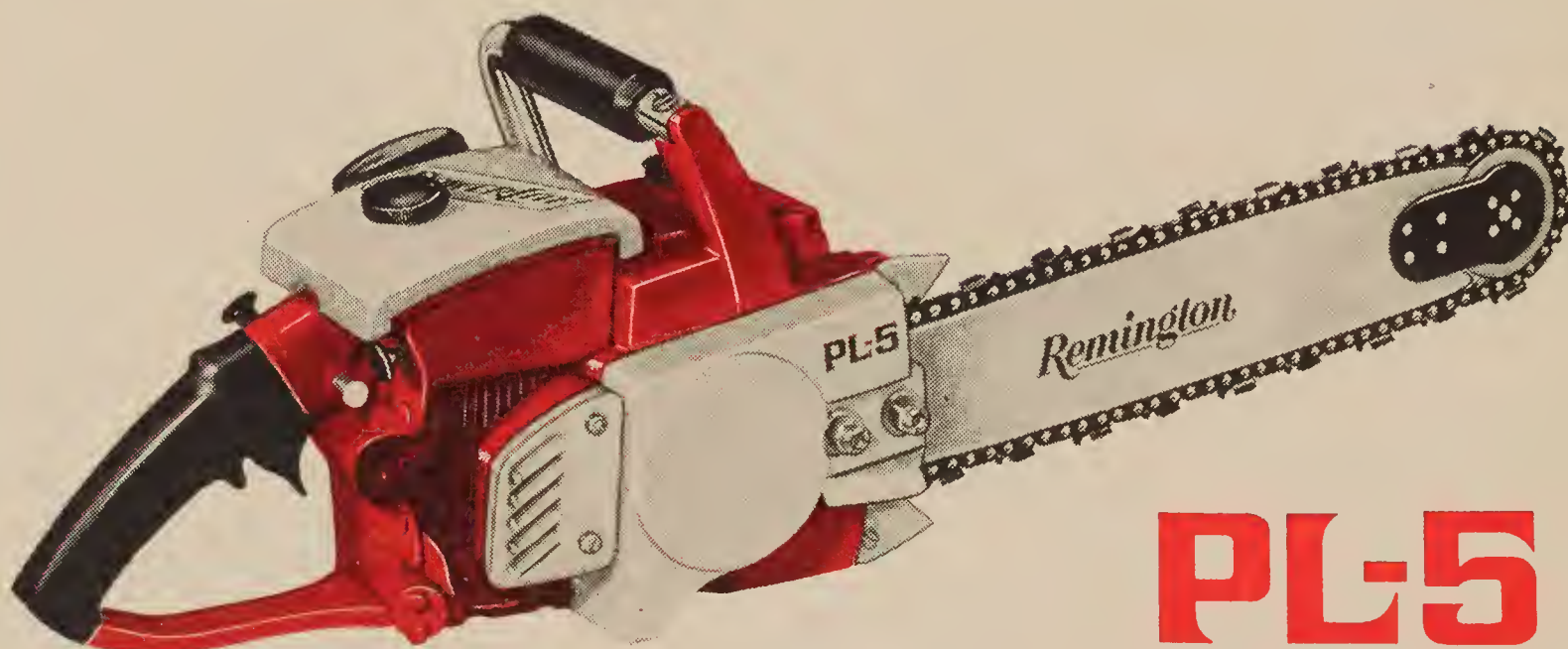
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American Agriculturist, December, 1966



American Agriculturist
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RURAL NEW YORKER

FOR THE NORTHEAST FARMER

Vol. 163, No. 12

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EDITORIALS

by GORDON CONKLIN



LETTER TO MY DAUGHTER

I can still remember the way your eyes sparkled as you looked at the pictures of Santa Claus in the bedtime storybook long ago . . . and your gleeful shouts when "Santa" came through the door at your first Sunday School Christmas party. You hung your stocking carefully in those yesteryears . . . dreaming of the goodies that would pour from that wondrous bag carried by the jolly old elf.

The years have come and gone since then, and with them you have developed a deeper understanding of the meaning of Christmas and the legend of Santa Claus. You have wistfully laid aside the visions of the North Pole workshop, with its busy and happy elves . . . replaced by a growing understanding of the holiday's spiritual message, and the possibilities of man's generosity toward his fellow man. However much I might tell you about "the spirit of giving" or the symbolism of Christmas tradition" the fact cannot be disguised . . . there is no Santa Claus.

Now you are moving toward the time when it will be your turn to move into the arena of productive living . . . taking up your full share of responsibilities. You will find that many people . . . old enough in years to be called adults, but childish in their attitude . . . still literally believe in Santa Claus. They vaguely think of the U.S. Treasury as being staffed by jolly elves that turn out wealth in the form of dollar bills . . . completely ignoring the fact that wealth consists of goods and services created by responsible people. "Federal aid" and "state aid" are thought to be manna from Heaven, rained down from an inexhaustible and magic storehouse.

There are other symptoms of this delusion of irresponsibility, but these will be enough to illustrate. It sounds a bit grim, I suppose, but the blunt fact is that there is no Santa Claus at the North Pole, at the South Pole, at Washington, at Albany . . . or anywhere else.

In those years I mentioned that we both remember so fondly, someone worked to create . . . and pay for . . . the toys and dolls that delighted your heart at Christmas time. It's the same now . . . governments at all levels only distribute what has been taken from the fruit of human effort.

Don't get the idea that I'm "agin government" and its multitude of essential activities. My point is that you and me and our neighbors are citizens of a nation where we bear great responsibility for how our government is run . . . and we pay the bills for public programs.

There is no magic about creating the things you and I want . . . they are a result of effort, of taking risks, of working long hours, of self-discipline! As a general life principle, one never gets something for nothing.

True, some of the folks I told you about have been able to get without ever giving of themselves . . . but only by being parasites on those who are . . . or who have been . . . productive. Strangely enough, our society has begun to think of "justice" as dividing production equally rather than providing equal opportunities to be productive.

There are those who would deeply resent my "destruction" of the myth of Santa Claus, because mankind has for ages dreamed of a workless existence . . . of reclining on a couch with a magic lamp whose genie would bring everything one wanted. But you will discover

that a greater wisdom than ours created us to grapple joyously with challenge, to push restlessly beyond the horizon, to find satisfaction in creativity, to enjoy living most in the midst of worthwhile accomplishment, to be really alive only as we lose our petty personal concerns in the battle for purposes beyond ourselves.

RAILROAD ROULETTE

For months . . . nay, for years . . . proposals to lower northeastern freight rates on feed and feed ingredients have been going 'round and 'round. Just before any one of them became effective, the Interstate Commerce Commission would suspend them again. The latest episode of this sorry saga scuttled a proposal that was to become effective October 1.

Northeastern poultrymen are particularly concerned about rail rates that put them at a competitive disadvantage with their counterparts in the South and in Delmarva. Rail lines were willing to lower northeastern rates . . . and make rate schedule changes that in general moved traditional schedules toward the realities of the 20th century.

However, some powerful interests would be financially disadvantaged by such changes . . . among them several milling firms in the Midwest, a seafaring union, and the City of Buffalo. In response to pressure from these groups, the ICC chose, for the umpteenth time, to block a change that would have benefitted northeastern agriculture.

It's a decision that is bad for farmers, and in the long run bad for the railroads . . . likely to delay for perhaps a year or more any further action, and further reduce sagging feed tonnages moving by rail into the Northeast.

NO APOLOGIES

Why is it that when food prices rise some farm spokesmen feel a compulsive urge to apologize endlessly to consumers? Secretary of Agriculture Freeman criss-crosses the land, explaining the economic facts of life to angry urban politicians, to consumer organizations, to newspaper editors . . . although he admitted in what he thought was a closed session that it's best to "slip, slide and duck" questions about rising food prices. It's as though a sin of the first magnitude had been committed when food prices rise. Some folks talk as though the peasantry had revolted against the aristocracy.

Meanwhile, the labor union leaders join the angry howls about the rising cost of living . . . when they can find time from their job of wresting higher wages for their members, that in turn raise the cost of living. How often do you hear Jimmy Hoffa apologize to consumers for the fact that a hike in wages to teamsters piloting milk tank trucks raises the cost of a quart of milk?

A rash of strikes over the next six months will result in generally higher wages . . . raising farm production costs, and also pushing up costs in the distribution sector of agribusiness. Result . . . higher food costs, only a fraction of which end up in the farmer's pockets. The farmer makes a convenient whipping boy for the whole thing, especially by clever politicians who know where the votes are.

But I've got news for politicians and consumers alike . . . farmers are becoming more sophisticated in politics and economics every day, more business-oriented, less willing to farm as a "way of life" regardless of alternative opportunity. If people want to continue having an overflowing abundance of luxuries like food and fiber, then they will have to accept price increases for them . . . just as they readily do for necessities like whisky and tobacco.

Farmers are highly-skilled technicians and managers, risking large amounts of capital . . . and they owe no apology to anyone for increases in at-the-farm food prices. In fact, such increases are long overdue.

WARMONGERER

At least part of the reason for chronic . . . and recently acute . . . labor shortage on northeastern farms is the growing war in Viet Nam. A larger number of American servicemen are on the scene there today than were in Korea at the height of that ruckus. Throbbing war industries raise wages ever higher to attract a larger work force at home.

Just think, only a few years ago . . . 1964 to be exact . . . a presidential candidate brought forth a storm of criticism, from voters and his opponent alike, for suggesting it might be necessary to bomb North Viet Nam. Imagine that!

GOOD BRIDGE

Visited a while ago with Charles Tutton of Ithaca, who is working full time at a machine shop in the city, and also operating the home place as a part-time farmer. He was justly proud of a beautiful field of Niagara oats he grew last summer . . . planted early (April 18) as they should be.

Part-time farming provides a good bridge for those working primarily off the farm and wanting to move toward farming full time, or for those who are in the process of shifting from farming to other occupations.

There have been heated charges that the "part-timers," using capital earned in off-farm employment, have offered unfair competition to full-time farmers. Proposals have even been made to artificially limit access to the profession of tilling the soil . . . perhaps by licensing farmers, as Jim Patton of the NFU once advocated.

Actually, though, the figures show that the "part-timers" produce only a very small percentage of the nation's total farm output. With the spectre of food shortages replacing the bogeyman of surpluses, the world is now happy with every ounce of farm production it can get . . . regardless of who produces it.

Part-time farming is desirable in many situations . . . to supplement retirement incomes of older people, to provide stimulating work and a sense of responsibility for youth, to provide interesting activities for urban workers who prefer to live in the country . . . as well as to grease the wheels of transition either into . . . or out of . . . full-time farming.

I conclude that part-time farming makes a constructive contribution to the rural Northeast.

WHERE THEY AT?

Whatever became of those economic "experts" who claimed only a few short years ago that low milk prices were responsible for surplus production? I suspect they are all testifying busily to anyone who will listen that the way to stimulate milk production now is to raise the price!

Some folks have no problem answering the famous question, "What is truth?" Simple, to them . . . it's whatever serves their purposes best at the moment.

American Agriculturist, December, 1966

Food For The Spirit

by Robert Clingan

WHAT FAITH IS NOT

SO OFTEN a counterfeit form of faith has been passed for the real thing. Good corrective lenses to spiritual eyesight may be found in thinking about what faith is not.

Faith is not a tether that checks our investigation and holds us back from exploring the basis of our honest doubts.

Faith is not a pair of blinders placed years ago on city horses pulling wagons down a noisy street. The horse was to look to neither the right nor left; his vision was limited to straight ahead. True faith, properly understood, does not limit our range of vision nor require us to consider only certain kinds of information in our honest search for truth.

Neither is faith a fancy, gift-wrapped package. It is not a Christmas package that is not to be opened until a certain day and a certain season is here. There is not the package quality of "take it or leave it," "all or nothing" to the offerings of honest, vital and viable faith. A packaged statement of religious truth reduces faith to blind acceptance. True faith has never been willing to have either its roots or its fruits delivered in a pre-planned packaged system.

Dr. Carlyle Marney of North Carolina has said that neither is faith "some fish you have caught and placed in your pail." Great faith is not something we possess or exclusively use. Faith is something we share. In its fullest, most mature and dynamic form, faith is something that possesses us.

Rather, faith is characterized by words like openness, direction, commitment, support, fulfillment, and meaning. Abstract as these words are, they describe the life of one about whom the scriptures say, "The Word became flesh and dwelt among us." The book of Hebrews in the Bible carries out our definition of faith to the ultimate when it says, "Now faith is the assurance of things hoped for, the conviction of things not seen."

LIVESTOCK



Freeze-Branding — A recent article in the Journal of the American Veterinary Medical Association described a process of branding which destroys the pigment-producing cells of the skin and causes little or no pain to the animal. Crushed dry ice in ethyl alcohol and liquid nitrogen were the cooling agents for the "irons" used, and experiments performed on dogs, cats and cattle proved successful. In most cases, an easily-legible identification in the form

of white hair growing in the pattern of the brand eventually appears on the area branded . . . providing the animal isn't white.

New Book — Ranchers and farmers will be able to get authoritative advice about parasite problems from a new book just published by Merck & Co., Inc. Among the subjects covered are the life cycle of the cattle roundworm, methods of detection and measuring damage, and advice on how to map out a worming program. The book, entitled "Tiny Threads of Waste," is illustrated, and can be obtained free by writing Department A.A., C. B. Nelson, Merck Chemical Division, Rahway, New Jersey.

BEEF SHORT COURSE

Breeding, feeding, management, animal health, and the economics of beef production are some of the topics that will be given special emphasis at the 16th annual Beef Cattlemen's Short Course scheduled at Cornell University for January 23-27. As in former years, the last two days of the course will feature discussions, demonstrations and practice in getting cattle ready for shows and sales.

Numerous outstanding speakers have been scheduled for the program. Included will be Ben Mor-

gan, livestock specialist of Pennsylvania State University; others will include breed association representatives, producers, marketing specialists, and College personnel.

Although special emphasis has been given to subjects of interest to people new in the cattle business, anyone interested in beef production should find the program worthwhile. For copies of the program and additional information, get in touch with M. D. Lacy, Morrison Hall, Cornell University, Ithaca, N.Y.

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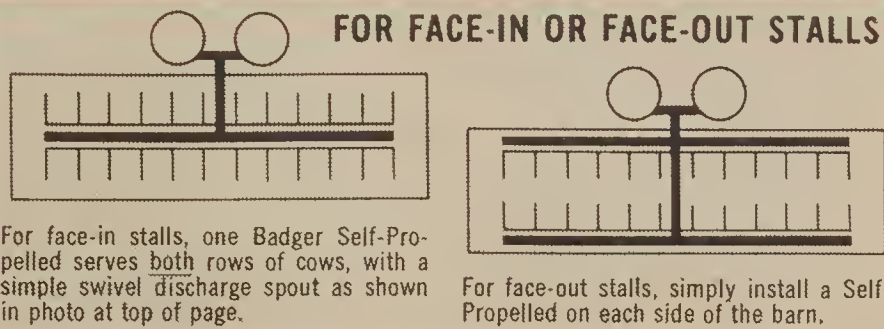
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David Ross

GRAPES AND PULLETS

Our farm business is a combination of grapes, other fruit, and poultry farm. However, the poultry enterprise is somewhat unusual. We grow 32,000 pullets a year, on contract in two broods. Isola-

tion is in our favor; there is no commercial laying operation within 10 miles. We don't even keep hens for the eggs we eat!

The "other" fruit consists of 4 acres of pears. I prefer to grow grapes, but buyers tend to hold down the acreage, which is a good thing because too many grapes can ruin the market. However, we do set some more grapes as the market expands.

Grapes require plenty of spraying, up to 8 or 9 applications. Chemical weed control has been a big help, but they still need some cultivation. Also, we don't use weed spray for 2 years on young grapes.

Another thing that helps is a brush chopper. We used to push

the brush (prunings) out of the vineyard and burn it; now we chop it in the rows. It saves work and prevents erosion. We also use a heavy disk which really can chop up the ground, even ground in sod. Early in summer we seed a cover crop which is cut up with the brush chopper.

Dad, from whom I bought the farm in 1950, spends the winters in Florida, but helps in the summer and fall, when he supervises the pickers. We have two full-time men, Glade Whitesele, my foreman, who has been with me three years, and Joseph Bell, with me two years. Pickers at harvest are local help paid by piecework.

I have been slow in converting

vineyards to permit mechanical harvesting, but increased labor costs (for example, applying minimum wages to farm help) may convince me. I have felt that some growers emphasize the advantages and minimize the disadvantages. For example, the cost of the trellis for converting an acre is considerable.

Our Concords go to Welch (owned by the growers) for making grape juice. Wine varieties are trucked to Hammondsport in the Finger Lakes region. At the same time, Concords grown in the Finger Lakes area are trucked to Westfield.

Incidentally, we grow 70 acres of Concords and 21 of wine varieties. — David Ross, Westfield, N.Y.

Personal Farm Experience

The items on this page all come from the firing line of farm production.

PRODUCING MILK IN POTATO LAND

We have the only dairy farm on the north fork of Long Island, with 75 milking Holsteins and around 110 head, including young stock.

We pasteurize, homogenize, and bottle here on the farm for a route man who pays us 17 cents a quart, and gets 27 cents from the consumer. This fall he expects the price to go up a cent, and we expect to get half the increase.

Costs are high. We raise 50 acres of corn for silage, and 7 to 8 acres of alfalfa . . . but buy most of our hay (around 100 tons) at around \$52 to \$55 delivered, and all our grain by the carload. We are aiming to grow enough corn silage to feed the year 'round, but in July this year we fed greenchop corn.

As to labor, my yearly bill five years ago was \$14,000; now it is around \$20,000, with milk bringing the same price.

One way we have cut costs is by using rye pasture. We seed right after corn harvest. (We use an early variety of corn). The rye is ready to pasture around October 1 and lasts until the middle of November. We divide the field into

8-acre lots by an electric fence, and leave the cows on a lot about a week.

In the spring they go on rye pasture from about the middle of April until we plow for corn. We don't use atrazine on corn because it hurts the rye. We put a rotoblower on the rye before we plow and turn under quite a lot of organic matter.

The cows are turned into the rye after milking in the morning, and taken off around noon. This is to prevent an undesirable flavor in the milk.

My son Ralph is the herdsman, and Robert Matthews, who has been with us three years, helps in the barn. Ralph's son, who is 18, helps in the summer.

Maynard Palmer, who has been with us for 13 years, manages the pasteurizing and bottling. I figure the break-even point with us is 1200 quarts a day. Right now we are producing 1325 quarts, which doesn't give us too much margin. — Ralph Tuthill, Mattituck, Long Island.

CAGE REARING

We grow pullets, starting the chicks on the floor and then in cages from 6 to 22 weeks. The house has a capacity of 20,000 pullets, and we plan that it will not be empty over a week while it is being cleaned and disinfected after pullets are taken out.

We also grow 15 to 20 acres of strawberries and an acre of tomatoes, and plan to grow some sweet corn and set out some raspberries next year. Most of the strawberries are harvested "pick 'em yourself," but if more get ripe than are sold this way, we hire migrants from King Ferry and process and freeze what they harvest.

We feel that instruction and supervision are essential where

customers pick their own. Before they go into the field we tell them how and where to pick. Each picker is given a row, and asked to stay there. We feel that customers are entitled to good picking.

Next year we plan to try selling sweet corn to customers who pick their own, and perhaps raspberries when they come into bearing. We also grow some red kidney beans and keep a few beef cows.



Paul Grismore with some of his pullets.

We started raising pullets in 1960. My Dad had grown strawberries for years, but production has changed so much that it takes about the same effort to grow 12 to 15 acres as it used to take to grow one. Incidentally, we plan to harvest berries two years before we plow the field again. — Paul Grismore, Genoa, N.Y.

NARROW ROWS

We are growing some corn in 20-inch rows. We use wheel track planting in 40-inch rows, and planted part of our crop by setting the planter at 15,000 plants per acre and then turning around and putting in a row between the 40-inch rows, giving us a population of 30,000 per acre.

We like wheel track planting plus atrazine and no cultivation,

and when we are ready to trade tractors we may figure an arrangement of wheels to permit 30-inch rows.

The corn is Cornell M-3, and was planted May 10 to 12. On the last of August it looks good, with plenty of ears. We plan to count the loads to compare roughly with corn in 40-inch rows, then decide what to do next year.

Our rotation is corn for two years, then oats with alfalfa seeded clear. We had some damage from the alfalfa weevil in '66, and plan to spray after first cutting in '67 with a combination of insecticide and liquid fertilizer. — Art Fellows, Trumansburg, N.Y.

POTATO IRRIGATION

Moving irrigation pipe in a potato field is hot, muddy work. Much thought has been given to a better way to put on water, and we are trying out one new way on 20 acres of potatoes.

Soon after the potatoes were up we installed irrigation pipes that will stay put until just before the crop is dug. The pipes, which are 2 inches in diameter instead of the usual 4 inches, are laid along a row 48 feet apart instead of 60 feet . . . which was the distance we moved the 4-inch pipe each time we irrigated.

With 4-row equipment we straddle the permanent line. One advantage of the new system is that it saves labor (because you don't move the pipe). Also, the nozzles are smaller, and water is put on more slowly. We are told that keeping the surface soil moist will increase the yield by 10 to 15 percent partly because the more constant evaporation will keep the temperature lower.

We installed the system on 20 acres in a day. This is the first

(Continued on next page)



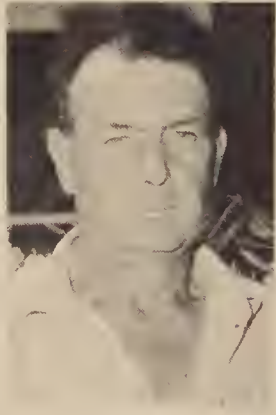
In his spare time Ralph Tuthill operates as a Justice of the Peace.

year, so we don't know yet how long it will take to remove it. We expect that a heavy growth of vines may complicate the job. — *John Talmage, Riverhead, Long Island*

SMALL BUT SOLVENT

This is essentially a one-man farm, and I have a problem. A new road will be built through the farm, and at my age I'm not sure that I want to start on another.

We milk 30 grade Holsteins and raise our own replacements. I give calves whole milk for three days, then calf meal mixed with water. I like to have them freshen at 30 months, weighing as near 1200 lbs. as possible.



Philip Morton

We grow quite a bit of alfalfa. I may be wrong, but I prefer not to pasture it. Sometimes I put on fertilizer after the first crop, and usually plan on only two cuttings.

We raise a considerable amount of corn, oats, and wheat, all of which I feed. A man comes to the farm every two weeks with a portable mill and grinds home grain, to which I add 300 lbs. per ton of a high protein mixture. The cows get good roughage and grain at the rate of a pound for each 3 to 4 lbs. of milk.

I am naturally on the conservative side, and have been satisfied to run a relatively small business on a relatively small amount of credit. You don't get rich, but you are more likely to stay solvent. — *Philip Morton, Stowe, New York.*

GROWS HEN FEED

In 1950 I started in the poultry business with 300 chicks. We gradually increased the size until we keep 22,000 layers and operate a hatchery. We hatch about 700,000 a year, some from our own eggs and some which we contract from nearby poultrymen.

We recently built a 40 x 300-foot house, primarily for raising pullets, though it can be used for laying hens. Underneath the house is a 7-foot pit for droppings. We can drive in with a tractor and scoop, which allows cleaning when it's convenient and when we can get on the ground to spread. Incidentally, we grow 400 acres of crops, including some wheat, and 200 acres of corn, which is fed to the hens.



Stan Koskinen

We own a grinder with a capacity of 20 tons a day, also two storage bins, each holding 8,500 bushels. We use 3 tons of feed a day, and figure roughly that our own grain facilities may save around \$3 a ton.

The present laying house, which is older, has a slat floor and a pit. It is cleaned once a year when pullets are put in, but the slats must be removed to permit cleaning. — *Stan Koskinen, Podunk, Tompkins Co., N.Y.*

HIGH MOISTURE CORN

We are feeding high moisture ear corn, haylage and corn silage to our herd of 70 milking purebred Holsteins. Corn silage is stored in a 14 x 40 concrete-stave silo, and the high moisture corn and haylage in two Harvestores. The corn is ground on the cob and some

husks are included also.

We have stored the high moisture corn for 3 years and like it. Last year we bought some soybean meal but didn't see that it helped production and I doubt that we will buy more.

We grow alfalfa, and an analysis of haylage showed 13.3 percent protein on a dry basis. Moisture content was 46 percent which we feel was a little too high. However, the cows liked it. We also make haylage from green oats. The haylage and the wet corn are fed in an outdoor bunker equipped with an automatic conveyor.

We raise most of our heifers in a calf barn adjoining the Harvestores.

Calves are put on slats and fed whole milk (about 12 pounds a day) until they are ten weeks old. Then they are put in pens and fed grain (pellets) and haylage. We raise more than we need and some are sold when they are 9 months old.

We have a total of 140 head of livestock. The farm area is 400 acres. We grow 80 acres of corn and put up 8,000 bales of hay. Our herd average is close to 14,000 pounds per cow, which gives us over 300,000 pounds of milk per man. However, I no longer put in full time on the farm and the two boys do much of the work. — *Henderson Honour, Millerton, New York*

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stubborn cases of mastitis in lactating cows. By combining a nitrofurans with penicillin, Pen-FZ has a double attack on the bacteria that cause most mastitis.

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GET READY TO ROLL

Here's how to choose and use tractor tires for your situation . . .

by Wes Thomas



THE WIDE VARIETY of shapes, sizes, and tread patterns presently available in tractor tires often makes more difficult the job of picking the best tire for a particular situation. For example, what are the effects of using oversize tires or adding dual tires? Which tread pattern gives the best traction or the longest life?

Fundamental Principles

Traction or Flotation — Usually, it's a case of gaining one at the expense of the other. No one tread pattern, for example, gives both maximum traction and maximum flotation. However, many of the general-purpose treads provide a reasonably good compromise.

Dual Tires — Dual tires by themselves do not increase the traction or drawbar pull of a tractor. They can provide increased flotation in mud or sand conditions, and they do provide increased load-carrying capacity which can support additional weight or ballast. If additional weight is added up to the capacity of the extra tires, drawbar pull can be increased. However, the extra weight (made possible by the dual tires) increases the drawbar pull; the dual tires alone do not do so.

Open or Closed Tread Bars — There are many "backers" of either type of the familiar "V" tread of the ordinary general-purpose tractor tire. In some specialized situations one or the other may have slight advantages, but for general farm use one type is just as good as the other.

Ways of Adding Weight — Additional weight is necessary in practically all present-day farm tractors if they are to be operated without excessive slippage in any of the lower-gear ratios.

Cast-iron wheel weights or liquid in the tires are equally effective. The choice is primarily based on convenience. Wheel weights can be added or removed as needed, but they do occupy extra space on the tractor. Liquid does not occupy any extra space, but because of the equipment necessary for installing it, most farmers consider it a permanent part of the tractor.

In practice, both weights and liquid are often required. This is especially true for many of the new high-performance tractors which are basically designed for use with hitch-mounted implements such as plows. The weight transfer provided by the hitch helps

offset the relatively light weight of the tractor. However, if such a tractor is used with a conventional pull-type plow, the tractor doesn't have the benefit of weight transfer by the hitch. Therefore, maximum ballast is required to keep slippage within acceptable limits.

Amount of Fill — How full should tractor tires be filled? The more liquid, the more weight . . . but also the less resistance to shocks and bruises, because the liquid does not compress to act as a shock absorber.

A completely-filled tire loses about 27 percent of its bruise resistance. However, if limited to 75 percent fill, the tire retains all but 4½ percent of its resistance. Thus, the limited benefit of the slight extra weight hardly seems to justify the adverse effect upon tire life caused by a complete fill.

Tread Direction — On a tractor, the "V"-shaped tread bars should always point to the rear at the point where the tire is in contact with the ground. Sometimes in installing new tires, or reversing wheels to obtain a desired tread width, the direction of the "V" is reversed. This arrangement produces severe damage to the tread bars if the tractor is used on a heavy drawbar load. However, on ground-driven implements, such as manure spreaders, the "V" should point toward the front where the tire touches the ground.

Tire Sizes

Tractor tires used to have sizes designated in round numbers such as 11-38, 13-38, and 11-28. Now, however, the sizes seem to be complicated by odd value decimal sizes, such as 12.4-38, 15.5-38, and 12.4-28.

These size designations are the visible indication of a system for tire sizes known as low section height, or constant rolling radius tires. Before attempting to explain these sizes, it might be well to review a few "tire terms":

1. **Rim diameter** — diameter of the rim (or bead seat) upon which the tire is mounted.
2. **Section** — this can be visualized as the cross-section of the tire.
3. **Outside diameter** — overall diameter of the tire without load.
4. **Rolling radius** — distance from center of tractor axle to ground. This will be less than half the tire diameter because of the deflection, or mashing of the tire under load.

In the past there have been two methods of "oversizing" or increasing tire size. The first method involved simply the substitution of a tire of larger section upon the same rim. Thus, an 11-38 tire might be replaced by a 12-38 tire. This method was the simpler, and had the advantage of using the same rim and wheel, keeping added expense at a minimum.

Disadvantages

However, the method had several disadvantages, some of which were not readily apparent. As a result of the increased rolling radius it increased the ground speed without increasing the pto speed. This tended to overload pto-driven machines such as balers, combines, forage harvesters, and corn pickers. When used with a hitch-mounted implement, it adversely affected the geometry of the hitch linkage.

It also increased the tendency for sidewall buckling under load, and the tendency for sidewise rolling of the tire when operating on a side slope, or with one wheel in the furrow. Also, it decreased the fore-and-aft and lateral stability as a result of increasing the height of the tractor, and in many cases actually reduced the draw-bar pull.

This last situation would occur in cases where the tractor was operating at near its maximum-power output. The increase in ground speed caused by oversizing could only result in decreased drawbar pull. The decrease in slippage as a result of the reduced drawbar pull caused some farmers mistakenly to believe that the larger tires "held better." Drawbar pull could be increased only in situations where the tractor was operating at below maximum output power . . . and then only if the oversize tire were provided with additional weight to utilize its additional carrying capacity.

Another method, less frequently used, was to oversize the tires by substituting tires of larger section diameter but with smaller rim diameter, thus maintaining about the same rolling radius. This method overcomes most of the objections to the first method. However, it involves replacing both the rim and wheels, and many farmers were reluctant to accept the added expense of this method.

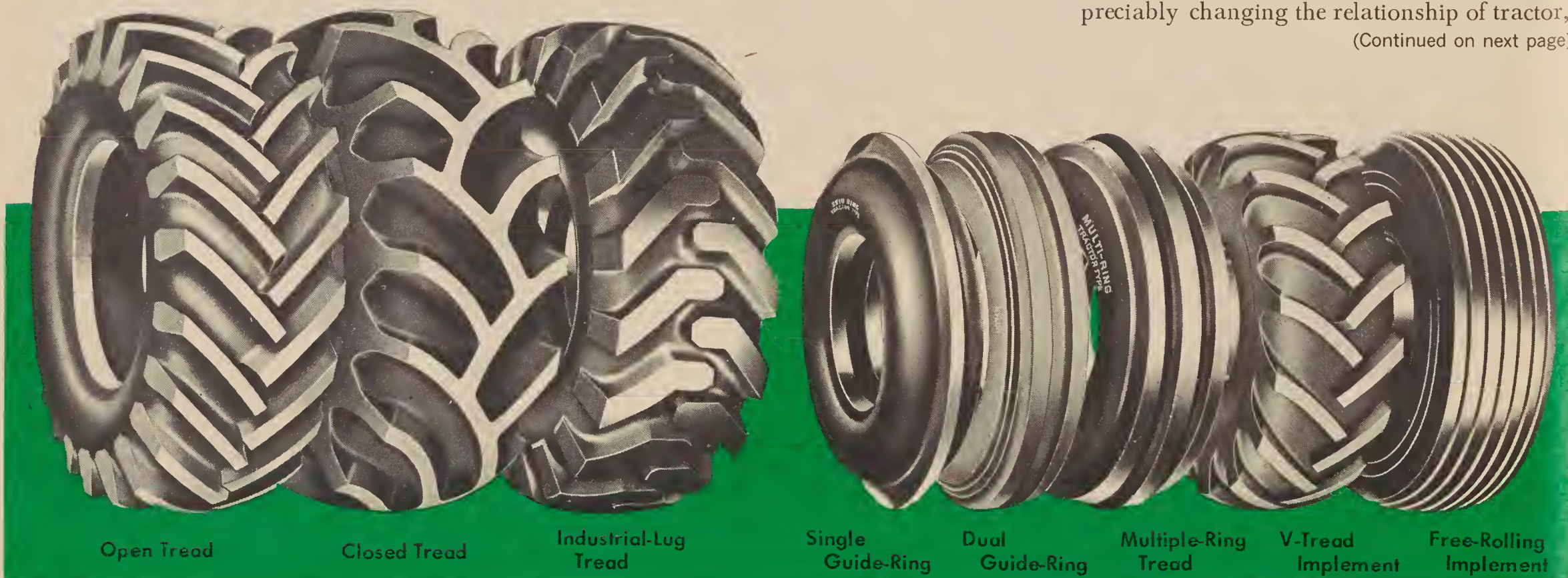
The solution to this problem has been found in the low section-height, or constant rolling-radius tire. In this type tire the section width varies, but the section height remains almost constant for a given rim diameter.

For convenience and simplicity regular agricultural tires are grouped by rim diameter. The number per group varies, and in the larger groups there is some variation in loaded radius between the largest and smallest sizes. However, even in these cases the mid-range sizes have relatively-limited variation.

These new tires provide several benefits:

1. Oversize tires can be used without appreciably changing the relationship of tractor,

(Continued on next page)



implement and ground, thus maintaining correct hitch linkage geometry.

2. In the 36-inch and 38-inch rim-diameter sizes, the outside diameters of the largest oversize tires are smaller than the previously-used oversizes. This smaller diameter provides for a lower center of gravity; it also permits mounting implements closer to the rear axle than was possible when space had to be left for greater outside-diameter oversize tires.

These two things reduce the amount of front end weight needed to balance rear-mounted implements, and also provide for greater fore-and-aft stability.

3. Relationships of drawbar pull and the ground speed to pto speed are not appreciably affected by the use of the new type oversize tires.

New Size Designation	Former Size Designation	Loaded Radius Inches
R.D. 24*		
8.3-24	8-24	18.2
9.5-24	9-24	19.0
11.2-24	10-24	19.9
12.4-24	11-24	20.8
14.9-24	13-24	22.4
16.9-24	14-24	23.1
R.D. 26		
13.6-26	12-26	22.6
14.9-26	13-26	23.4
16.9-26	14-26	24.1
18.4-26	15-26	25.6
23.1-26	18-26	27.7
R.D. 28		
11.2-28	10-28	21.9
12.4-28	11-28	22.8
13.6-28	12-28	23.5
14.9-28	13-28	24.4
16.9-28	14-28	25.1
R.D. 30		
16.9-30	14-30	26.1
18.4-30	15-30	27.4
R.D. 32		
24.5-32	---	31.5
R.D. 34		
16.9-34	14.34	28.1
18.4-34	15.34	29.4
R.D. 36		
11.2-36	10-36	25.9
12.4-36	11-36	26.8
13.9-36	---	26.9
R.D. 38		
12.4-38	11-38	27.8
13.6-38	12-38	28.6
15.5-38	---	28.6

* R.D. rim diameter

The first number in each size designation indicates the section width of the new tires.

Tread Types

Rear Tractor Tires — The familiar “V” tread general-purpose tire is a compromise among such factors as traction, flotation, and tread life. It is the best all-around tire for the majority of farm uses. However, for special requirements there are several specifically-designed tread types:

1. High-cleat treads provide maximum traction in extremely muddy conditions. This tread tends to wear relatively rapidly, however, if the tire is operated on hard or paved surfaces.

2. The button-type non-directional tread provides good traction and flotation in loose or sandy soils. This tread prevents sideslip on slopes, gives a smoother road-

ability, and longer wear on hard-surfaced roads. It leaves no tread imprint to damage lawn surfaces.

3. The industrial-lug tread is intended for on and off-the-road requirements of utility tractors used by farmers and contractors in earth-moving work. The shorter, wider bars give more contact area for longer tread wear. It provides more traction than button designs. On hard-surfaced roads it has about double the wear life of a regular agricultural tread bar.

Front Tractor Tires

Front-tire tread usually consists of one or more guide rings to help improve steering control of the tractor:

1. The single guide-ring tread

is the most effective “rudder” in soft-ground conditions. However, on hard surfaces it also wears the most rapidly because of the limited tread area in contact. This tread is considered a companion for the high-cleat rear-tire tread.

2. The dual guide-ring is slightly less effective in soft-ground conditions, but the extra contact area helps reduce wear. This tread might be a companion for the general-purpose rear-tire tread.

3. The multiple-ring tread provides maximum tread life at the expense of slight reduction in steering control. This tread could be considered a companion for the general-purpose, button or lug tread.

Implement Tires — There are a

variety of tread patterns available for the specialized requirements of implements:

For ground-driven machines, such as manure spreaders, a tread similar to the V-tread of the general-purpose tractor tire is often used. However, there is also available a non-directional implement tire, with bars at right angles to the direction of travel.

For free-rolling implement wheels, a multiple-rib tread offers minimum rolling resistance, but prevents sideslipping on side hills and banks. The grooved tread permits high-speed towing without vibration or sidesway when the implement is pulled on the highway.

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Walter VanBuren uses a three-stall milking parlor installed in the early 50's.

TOP DAIRYMAN

by Bob Cudworth

"WE GIVE our best producers up to 45 pounds of grain daily . . . provide a choice of feeds to our cows . . . and believe digestion is better if some of the grain is mixed in with the roughage."

This is part of the feeding philosophy of Walter VanBuren, Lockport, N. Y. who has the highest DHIC production average in the State for herds of more than 100 milkers. For 104.7 cows, his herd averaged 18,252 pounds of milk, 620 pounds of fat this past year.

No Pasture

Walter uses dry-lot feeding for his 150-cow milking herd which is housed in free stalls. But he still stays with his 3-stall pipeline milking parlor because he feels it pays to give close attention to each cow.

To do this, one of the hired men commences milking at 1:30 each morning; Mrs. VanBuren starts the afternoon milking at 1:30 each afternoon, and Walter usually finishes up. The chores are done by 6 p.m. The hired man who handles the milking puts in a 10-hour day, plus overtime when he wants it.

There are two regular hired men on VanBuren Farms (which total over 800 acres, including 400 of rented land) plus schoolboy help during the crop season.

Ration

At VanBurens, the dairy ration is usually made up of 1400 pounds of shelled corn meal, 450 pounds of soybean oil meal, 100 of molasses, and 50 of salt and minerals.

"In the fall, when most of our herd freshens, we feed up to 30 pounds of grain daily in the milking parlor to our best cows," says Walter, "and then mix in about 15 pounds of grain per cow with our hay, silage, or haylage in the feed bunks." During the summer about 7 pounds per cow is mixed in with roughage.

"We are convinced it's necessary to feed heavy on grain, and provide a variety of roughages to get top production. Some cows will do okay on just silage or silage and hay, but about 20 percent of them

need a bigger choice than that to produce at their potential.

"So in the fall and winter we often feed corn silage, grass silage, haylage, and first or second-cutting hay. Our first cutting is largely grasses . . . the second cutting legumes.

"With the grain blended in with the roughage we feel digestion and utilization are both much better. Last year we had to substitute wheat for corn at one time. The wheat worked fine nutritionally in the ration . . . but I'm sure we would have had digestive problems if we had tried to feed all the grain in the milking parlor," he pointed out.

Rainfall

This farm has been blessed with some rainfall this year and crop yields have been very good.

Corn silage was harvested at about 25 tons to the acre . . . some 600 tons of haylage were produced . . . and 40,000 bales of first-cutting hay were taken off. They get three cuttings from most of the meadows on this farm.

For storing corn silage, Walter uses a surface silo, built on a concrete slab just outside the feed bunk barn. At time of harvesting it was planned to build the stack some 20 feet high with an expected 1500 tons of silage.

The location is handy because a self-unloading wagon can be filled outside and then moved right along the two rows of feed bunks in the barn.

Walter puts heavy emphasis on breeding and herd health, too. One reason he likes the three-stall milking parlor is because close attention can be paid to each cow. He's particularly conscious of how sickness or failure to breed can cut into profits. He feels each day beyond two months after calving that a cow fails to breed will cost \$1 a day in lost production.

He keeps two young bulls on hand for breeding heifers . . . but has all the older animals bred artificially. About 45 percent of his herd is descended from the "Sears bull."

In all there are nearly 300 animals on the farm . . . 150 in the milking herd, 70 young calves and heifers for replacements, and another 70 bull calves and steers.

All the bull calves are kept, and if not retained in the herd or sold as service sires, are raised as beef steers to a weight of about 1200 pounds.

In 1961, Walter received the New York State Outstanding Young Farmer Award. Formerly a member of the Akron Junior Chamber of Commerce, he now belongs to the Lockport Chamber of Commerce. Niagara County Forage Champion on two occasions, he is a member of DHIC, Farm Bureau, the Extension Service, and the Advisory Committee for Empire Livestock.

Walter also owns the patent on a combination plow-planter that he doesn't use presently because his soils are too heavy. Several companies have been interested in this machine . . . which plows, plants, places mixed fertilizer two inches to the side and two inches underneath the seed, and also plows down nitrogen right under the furrow.

With his own crop production being heavy this year, Walter won't be buying any grain; but he feels a farmer just can't afford to short-change a cow on quality.

"When you buy corn or soybean oil meal, you have to be sure it's good . . . Number One. You can't start with spoiled corn and get top feed. The cows know the difference, and it certainly shows up in their production."

NEW MOVE FOR AI

by Bill Stempfle



Herdsmen Clarence Boelyn (left) and John Leib with the "herd sire" at Lakeside Farms . . . a refrigerator where frozen semen is stored in liquid nitrogen.

SINCE its inception a quarter century ago, the byword of the AI industry has been that "service is only as far away as the telephone." Now, with the innovation of self-service by at least one stud, the phone call and inseminator's visit are eliminated, and the cows are bred by some member of the farm staff. Now offered in all 50 states by the American Breeders Service, Inc., self-service is not a new venture . . . the company has had five years of experience with the procedure in California and Florida.

As dairy herds become fewer in number and larger in size, they also are more widely scattered; the distance an AI technician must travel becomes even greater . . . and operating costs higher. Then, too, in areas of sparse cow population it is difficult to maintain technicians.

At the outset, dairymen are motivated to use self-service as an economy measure and, depending on the skill of the man doing the breeding, there can be some cash saving. But the major benefits are in what may be considered the side effects of the do-it-yourself program.

For instance, when the owner assumes full responsibility for the breeding of his cattle, he must make an inventory of the herd and select those sires offering the prospect of maximum improvement in production, size, type, quality of udder, and feet and legs. Perhaps for the first time in his life, he will plan a long-term program for the upgrading of the herd.

Because the owner buys semen by the ampule and must bear the cost of that used in repeat services, he becomes sharper at heat detec-

tion, and is more particular as to the condition of the cows prior to breeding. As he acquires knowledge of the genital tract and reproductive organs, he is more likely to call in the veterinarian when abnormal conditions are observed, and for pregnancy tests. All these things help to improve the conception rate.

Training Necessary

The first of a series of beef and dairy AI Management Schools in the Northeast was held at Caledonia, New York, November 7 to 11. In that week-long session there was instruction in such subjects as the anatomy, diseases, and physiology of the reproductive organs; heat detection; animal nutrition; beef and dairy cattle breeding programs; and instruction and practice in insemination.

A new refrigerator especially designed for the self-service program is available for rent or purchase. Made of aluminum, it has a 60-day holding time and a capacity of 450 ampules. All breeding supplies and nitrogen are available, and the tank is periodically serviced. Of even more importance is the supervision by the ABS field staff.

Self-service AI, as envisioned by American Breeders, is not intended to supplant the practicing technician. To the contrary, ABS inseminators will share with the area representatives in the sale of semen and supplies, will assist in the supervision of the program, and be

(Continued on next page)

American Agriculturist, December, 1966

available for consultation by the customers. In that manner the experience of these men in AI and their considerable knowledge of animal breeding is made available to a larger clientele; and the technician becomes more of a consultant in the exacting science of breeding superior cattle.

Some Examples

To illustrate the many situations in which self-service offers special advantage, I would cite a few units already established in western New York.

When Gordon and Bruce Offhaks of East Aurora, who had served as ABS technicians for some years, recently decided to devote full time to their dairy herds, they purchased a refrigerator with George Ells and Herbert Drushler. The neighbors furnish the nitrogen, the brothers breed the cows, and each member of the group (who collectively milk about 300 cows) buys his own semen.

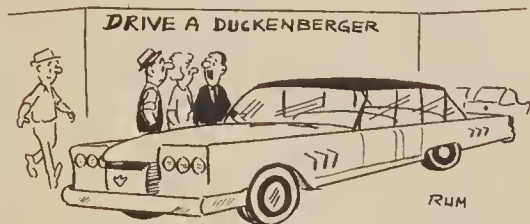
The farm of Robert Barie and Sons near Batavia has been on the Direct Herd Program for a full year, have made 250 first services, experienced a 70 percent conception rate, and compute the cost per cow in calf at \$5.50. This cost would have been somewhat less except for the fact that they have made liberal use of top-rated sires whose semen is more expensive.

Results

A third subscriber to the Direct Herd Program is Lakeside Farms of Ransomville, owned by Holman O'Connor... with John Lieb and Clarence Boelyn in charge of the 600-cow dairy. Both John and Clarence are experienced inseminators and, although this is the first year of AI here (natural service was formerly used), the conception rate is in the 65 to 70 percent range. In the opinion of both herdsmen, a high conception rate is importantly influenced by pre-breeding conditioning, periodic examination and treatment of abnormal conditions, and close heat observation.

It is the experience of the men in charge of the Lakeside herd that self-service AI results in better-timed breeding, a lower cost per cow in calf, and more effective herd management.

Almost a third of a century ago, in the October 14, 1939 issue of the American Agriculturist, I reported the good results experienced in Steuben County, New York, with bull rings... the method then used to identify and maintain in service the occasional sire that possessed the ability to transmit high production. The breeding of cattle has made tremendous gains since then. The self-service program is yet another step forward in man's centuries-old search for the ways and means to improve the breeding of cattle.



"Purchase this and making your payments will qualify you for the poverty program!"

American Agriculturist, December, 1966

PARLORS ARE FOR COMFORT

And milking parlors are no exception. But the constant dampness, cold, and drafts make most milking parlors something less than cozy.

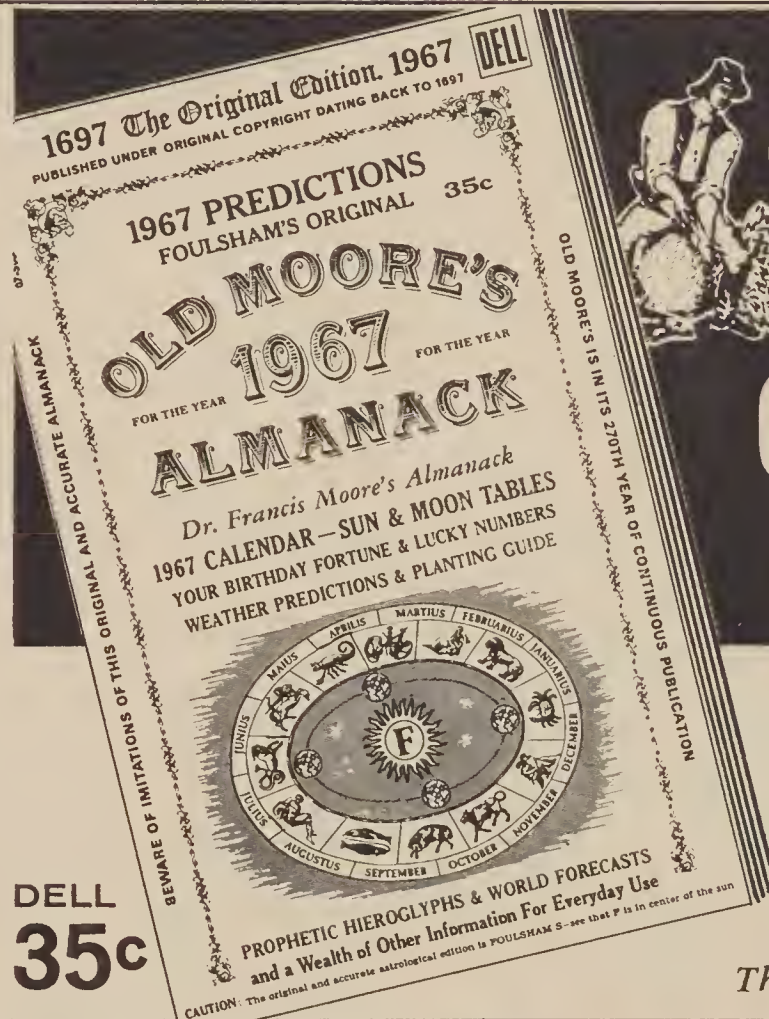
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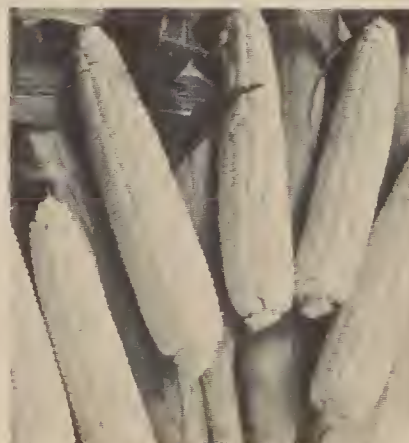
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UNNECESSARY WASTE

ABOUT THIS TIME every year we see cartoons depicting a frustrated, bewildered father trying to piece together a knocked-down toy from presumably complicated directions. We all laugh, because we know the natural human reluctance to read and follow directions. Instead, we stumble along trying to prove we are smart enough to do it on our own without directions. In the end we read the directions carefully and think, now that wasn't so hard after all!

Many cattle men are like this when it comes to getting their cows bred. They either look at it as being over-simple, or too-complicated, and pass off the lost-production and lost-breeding potential of good "sterile" cows sold for beef as a natural loss to be expected. This is waste, unnecessary waste!

The biggest reason why cattle don't get bred is not cystic ovaries, disease, or delayed ovulation; it is poor management. The most important job on your dairy farm is milking twice a day 365 days a year. The next most important is getting your cows bred (and the most important in a beef herd), which means a little time spent using all your five senses each day 365 days a year.

Simple Rules

Getting cows bred is not easy, yet it is not complicated if you follow a few simple rules. The most important rule is to keep records in writing. The most simple record is the best. Each cow should be identified by a system. In small herds names are best; in herds over 80 or 90 head neck chain numbers are better.

Each cow should have a separate page in a notebook of some sort, the simpler the better. On her page goes complete history. This book should be in the barn where everyone concerned... from the veterinarian and breeder to the owner and hired man... can write down things such as "Pus discharge October 13, 1965; milk fever and retained placenta July 30, 1966," etc. Also on this page go the veterinarian's findings when he examines the cow prior to breeding time, or checks her when she returned in heat for the third breed-

ing. Results of the 30-60 day pregnancy checks should be noted here also.

A barn blackboard is next most important, with such things as "Breed 33" for the breeder; "Vet check Molly and Suzy, no heat and Dolly in heat 10 days after last breeding." Also on the board could be "watch for heat May, Dot, Sue," etc.

A heat expectancy chart is a must in any dairy or beef herd. If you don't use one, ask your breeder or veterinarian about one today. Of course, a chart with breeding dates on a line for each cow must be kept.

Every farmer must arrange his own system to keep track of cows with no heats. If a cow is in 45 days and doesn't appear on the heat expectancy chart, have her checked by your veterinarian. If a cow retained her placenta, or has a note on her record of pus discharge, have her checked and possibly infused by your veterinarian. These things, and pregnancy checks, can be done on a 7, 10, 14 or 30-day schedule as you and your veterinarian see fit, but don't neglect them.

Most cows should be bred between 60 and 90 days after freshening, but if a cow is milked over 90 pounds a day, hold her up a little if you wish.

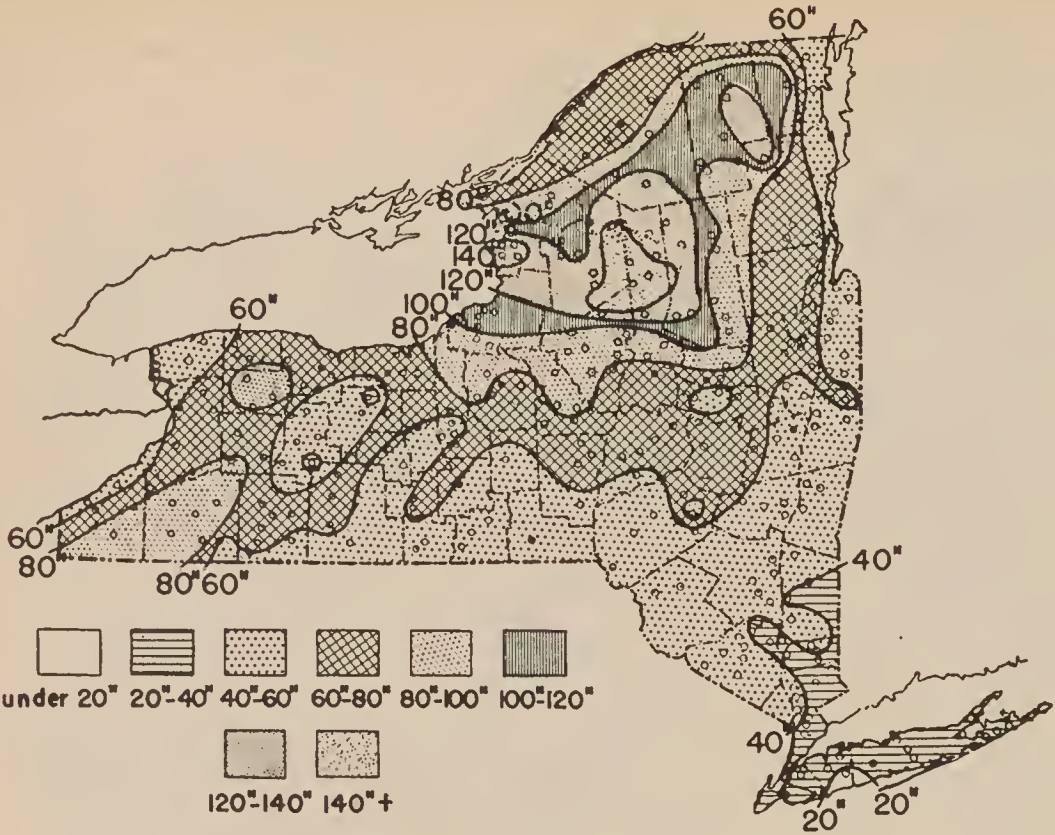
If you have cows tied, a small blackboard or card over each cow with name, fresh date and/or breeding and heat dates, and/or expected heat dates, and due dates, is a big help. In loose housing a large master board or file with a card for each cow could have the same information.

On Schedule

Arrange to have your veterinarian come on a schedule and stay with him when he comes. Have all the necessary information ready when he gets there, and write down everything he tells you to write down.

If you are breeding your better old cows to some well-known but old bull, remember that after seven or eight years a cow's conception rate falls off. After age six or seven a bull's conception rate falls off. If you are demanding that a cer-

(Continued on next page)



What's Your Mean Annual Snowfall?

Depends on where you live. In the "snow belt" east of Lake Ontario, you can expect 140 inches or more! In southeastern New York 20 to 40 inches. To Cornell meteorologists who compiled the map, the "mean" is the mid-point of many years' records. To others, any amount of snow is just plain mean! For everybody, official forecasts of amount of snow and other weather factors come to you on WEATHER ROUNDUP at 6:25 and 7:15 A.M., 12:15 and 6:15 P.M. over these stations:

FM STATIONS

Binghamton	WKOP-FM	99.1 mc.
Bristol Center-Rochester	WMIV-FM	95.1 mc.
Cherry Valley-Albany	WJIV-FM	101.9 mc.
DeRuyter-Syracuse	WOIV-FM	105.1 mc.
Hornell	WWHG-FM	105.3 mc.
Ithaca-Elmira	WEIV-FM	103.7 mc.
Jamestown	WJTN-FM	93.3 mc.
Niagara Falls-Buffalo	WHLD-FM	98.5 mc.
Olean	WHDL-FM	95.7 mc.
Oswego-Fulton	WOSC-FM	104.7 mc.
Wethersfield-Buffalo	WBIV-FM	107.7 mc.

AM STATIONS

Amsterdam	WAFS	1570 kc.	Niagara Falls	WHLD	1270 kc.
Auburn	WAUB	1590 kc.	Olean	WHDL	1450 kc.
Binghamton	WKOP	1290 kc.	Oneida	WMCR	1600 kc.
Boonville	WBRV	900 kc.	Oswego	WOSC	1300 kc.
Canandaigua	WCGR	1550 kc.	Rochester	WHEC	1460 kc.
Dunkirk	WDOE	1410 kc.	Salamanca	WGGO	1590 kc.
Elmira	WELM	1410 kc.	Sayre, Pa.	WATS	960 kc.
Gloversville	WENT	1340 kc.	Schenectady	WGY	810 kc.
Hornell	WWHG	1320 kc.	Syracuse	WFBL	1390 kc.
Ithaca	WTKO	1470 kc.	Walton	WDLA	1270 kc.
Jamestown	WJTN	1240 kc.	Utica	WBVM	1550 kc.

Northeast Radio Network

Ithaca, New York

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No, this isn't Ada the Ayrshire... just a foxy Holstein in Phil Scudder's herd at Painted Post, New York. She's discovered she can help herself to more grain by grabbing with her teeth, and pulling on the cable over her head. Here she's having seconds... or thirds.

tain ten-year-old cow be bred to a certain nine-year-old bull, don't blame the inseminator if it takes four or five services to settle her.

Very few cows don't have regular heats, but very many farmers don't see heats. Detecting heat should be on your mind constantly. Running the cows out a north door, and closing it so you can keep warm while you bed down is no way to detect heat any more than is keeping the cows inside because it is icy, too cold, or Sunday morning. Some good cow men can detect heats right in the barn, but they can't be thinking of deer hunting, the wife's Christmas present, or eight dollar milk while milking, feeding and cleaning up.

I know all this sounds sort of "Do as I say, not as I do." However, I do have a dairy herd of my own. At the start of this year's breeding in September we had a herd average for 52 lactations of 14,810 milk and 579 of fat. During the previous year not a single cow had been sold because she was a non-breeder, and all but six were bred to calves within a year of the previous calf. This was not because I am any "sterility expert," or that I spent a lot of time with these cows. In fact, as a veterinarian, I spend less time with my own cows than with those of most of my clients. But I do have good men with my cows, men who watch them, and leave me notes such as "Check Molly, discharge doesn't look good," or "Sally due in heat Wednesday but not seen." I do have a good inseminator who leaves notes such as "Agnes feels puffy and rod had pus on it." I do have a DHIA tester who will remind all of us that "Mattie isn't bred yet" if we all forget.

I do breed some cows to selected bulls, but after two services I go back to "pool semen." Getting these cows bred is not my accomplishment, but the result of the efforts of several people doing their job as is expected of them.

Let's put it this way, "Anything I can do, you can do better." You can, if you try!

* * *

It is difficult to finish a December article without some mention of the holiday season. One of the great things about people who work with animals and the soil is their faith . . . not only faith in God, but faith in nature and in each other. Along with this goes a confidence that seems to make things work out, just because of this faith that they will.

May this coming year be one that will see peace, happiness and success in all your ventures!

FEEDS



"He wants his feed on credit; says he's a little short this month."

American Agriculturist, December, 1966

Dates to Remember

Dec. 3 - Registered Hereford Heifer Sale, Finger Lakes Livestock Pavilion, Canandaigua, N.Y.

Dec. 4-8 - National Farm Bureau Annual Meeting, Las Vegas, Nevada.

Dec. 4-8 - National Junior Horticultural Association 32nd annual convention, St. Louis, Mo.

Dec. 5-6 - 28th Cornell Seed Conference, Sheraton Motor Inn, Ithaca, N.Y.

Dec. 6 - New Hampshire Poultry Growers Association meeting, Berkshire Country Inn, Nashua, N.H.

Dec. 6-7 - New England Farm and Power Equipment Dealers Association Convention, New Hampshire Highway Motel, Concord.

Jan. 4-6 - Annual Northeastern Weed Control Conference, Hotel Commodore, New York City.

Jan. 5-6 - New England Fruit Growers Annual meeting and trade show, New Hampshire Highway Motel, Concord.

Jan. 9-13 - '67 Pennsylvania Farm Show, Farm Show Building, Harrisburg, Pa.

Jan. 10 - 5th Annual Ruminant Health Nutrition Conference, New York State Veterinary College, Cornell University, Ithaca, N.Y.

Jan. 11-12 - New Jersey State Horticultural Society and the Vegetable Growers Association of New Jersey, Ivystone Inn, Pennsauken, N.J. Route US 130.

Jan. 17-19 - Annual meeting National Council of Farmer Cooperatives, New Orleans, La.

Jan. 23-27 - Beef Cattlemen's Short Course, Cornell University, Ithaca, N.Y.

Jan. 30-Feb. 1 - National Dairy Council 52nd Annual Meeting, Ambassador Hotel, Los Angeles, Cal.

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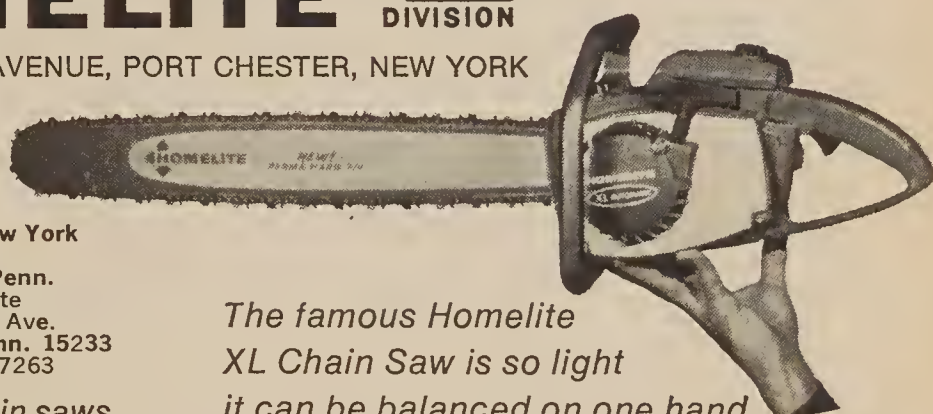
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News and Views from NEW YORK AND PENNSYLVANIA



Calves to Greece — In the first experiment of its kind for Greece, 360 3-weeks-old dairy animals... mostly bulls but a few heifers, were assembled at the Empire Livestock's marketing facilities at Bullville, New York. The calves, selected by the firm of Provimi, Inc., spent two weeks at Bullville, then were shipped by air to the American Farm School at Thessalonica late in October.

The trial shipment is a project of the Greek government, which plans to feed out the animals to 800 to 900 pounds each, use the bulls for beef and heifers for either beef or milk production. If the test works successfully, this shipment may be the forerunner of many thousands of American calves going to Greece.

Award — Myron D. Lacy, professor of animal science at Cornell University and Cooperative Extension specialist, was presented the annual American Society of Animal Production Extension award recently for his work in animal husbandry. He was one of seven of the nation's leading experts in the field to receive this honor.

Professor Lacy inaugurated the Beef Cattlemen's Short Course in 1952, judges numerous shows throughout eastern states, and developed the 500 Beef Club through the Extension Beef Cattle program.

New Directors — Two new directors of the Dairymen's League Cooperative Association for the coming year are Richard Redmond, Scipio Center, New York, and Ira L. Yoder, Selinsgrove, Pennsylvania. Six others re-elected are: Phillip Schuyler, Cobleskill; Lloyd R. Dysinger, Gasport; Thomas R. Dady, Cazenovia; Baumes M. Marshman, Oxford; Carl B. Carpenter, Woodhull; and Robert S. Turner, Horseheads, all of New York State.

New Horse Law — A new law now in effect absolves New York State property owners from liability when they voluntarily permit horseback riders to use private property. It specifically applies only to those owners who voluntarily permit the use of their property without charge. And, of course, riders should be advised of any known hazards which they may encounter on the private property.

Apples on Wire — On the farm of Joe Willmes, Penfield, New York, is a plot of apples growing on wire... espaliered is the name for it. Another plot is to be established on the Earl Robb farm in Brockport, to carry out new techniques learned from the first experiment. In the summer of 1966 nearly 200 growers visited the Willmes farm to see the new project.

Third Time — A six-year-old bull, Woodburne Gorewood Reflector, owned by Richard J. Frederick, Martinsburg, Pennsylvania, won

the All-American grand championship in Holsteins for the third year in a row at the Pennsylvania All-American Dairy Show in Harrisburg.

FFA Honors — Richard Englebrecht (22), Madison, New York, received the \$1,000 Star Farmer of America Award at the National FFA Convention. Richard, a graduate of the Madison Central School (New York), in partnership with his wife has a herd of 29 producing dairy cows, with 20 heifers and calves coming on for replacements. His total assets, including the farm which was purchased in 1965, and machinery and livestock, amount to \$76,360.

Gary L. Swan (19), Jasper, New York, was elected president of the national FFA, the first New York State FFA member to be selected for this high office. His selection follows a distinguished career of leadership in local school, county and State associations. Harold Burbaker, Mount Joy, Pennsylvania was selected a regional vice president for the National association.

Star Poultry Farmer chosen at the Neppco Exposition is Richard G. Holland, Berlin, Maryland. Other northeastern winners were: Allen Drummond, Greenwood, Delaware; Lawrence Wise, Derry Village, New Hampshire; and James W. Musser, East Earl, Pennsylvania.

"Stewardship of our Streams" was the title of the winning essay in the 1966 New York State Soil and Water Conservation Essay Contest sponsored by the New York State Grange. The author is George Allen, son of Mr. and Mrs. Allen, Greenwich, New York. George's essay was written as a special project in connection with his FFA activities. Conservation is an important part of vocational agriculture studies at Greenwich Central School, and Mr. Emanuel, vocational agriculture teacher, says: "I am indeed proud that one of our students has reflected this work in such an outstanding fashion." Incidentally, George was winner of the American Agriculturist Foundation Award at the school in 1965.



George Allen, winner of the essay contest (right) with his teacher, Mr. Bruce W. Emanuel.

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- Cobleskill—Greene's Shoes
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Jay Lee Shoes
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- Eden—Laing's Mill
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Parr's Shoes
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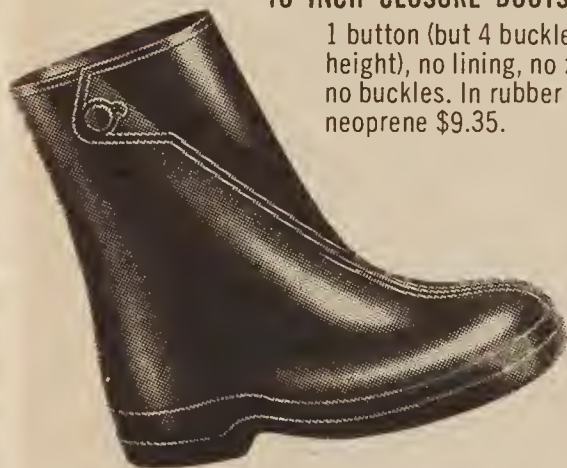
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Ilion—Wagner's Shoes
Ithaca—Cosentini's—both stores
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Jordanville—Vincent Briggs
Kinderhook—Pomological Assn.
Le Roy—Pat's Bootery
Lewis—Benedict & Sons
Liberty—Sullivan's of Liberty
Little Falls—Lovenheim's
Spaunbauer's
Liverpool—Toni's Family Shoes
Livonia—J. C. Monte
Lockport—Perry's Shoes
Surplus Center
Lyons—Men's & Boy's Shop
Manhasset—Manhasset Trading Post
Manlius—Leader Shoes
Massena—Levine's
Mattydale—Unger's Shoes
Medina—Baughn's Shoes
Wolk's Menswear
Medusa—Ernest Bell
Millerton—Millerton Store
Mohawk—Mohawk Mills Ctr.
Montgomery—Montgomery Agway
Montour Falls—Guild Bros.
Moravia—Jennings'
Moravia Agway
Morrisville—Carters'
Mt. Kisco—Markoff Shoes
New Hartford—The Shoe Shop
New Rochelle—Jack's Army & Navy
The Trading Post
Newburgh—Haber's Shoes
Nichols—Nichols Agway
North Chili—Higbie Farm Supply
North Syracuse—Dwyer's Jr. Shoes
Unger's Shoes
North Tonawanda—Payne Ave. Shoes
Norton Hill—L. H. Powell & Co.
Ver Planck Appl.

Norwich—Rappaport A & N
Sullivan's Shoes
Ullwin's Shoes
Oakdale—Oakdale Trading Post
Odessa—Odessa Agway
Ogdensburg—Ogdensburg Agway
Rite's Exchange
Olean—Lester Shoes
Stone's Shoes
Oneida—Alfred Bargain Ctr.
Bartell Shoes
Garafalo Shoes
Oneonta—Bresee's
Bruno's Variety
Schatzky's
Webb's Shoes
Ontario—Herman's Agway
Oswego—Cutro Shoes
Ontario Sport Shop
Owego—Langdon A & N
Owego Agway
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Palmyra Agway
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Phelps—Phelps Agway
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Port Chester—Levine's Army-Navy
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Schmanke's Bootery
Sofia Shoes
Rock Glen—Ed Davis & Co.
Rockville Center—Rockville Ctr. Trading Post
Rome—Phillipson Army-Navy
Rome Bargain Center
Salamanca—Mason's Shoes
Sloan's
Sayville—Sayville Sport Shop
Scarsdale—Murray's Army-Navy

Schaghticoke—Wiley Brothers
Schenectady—Bi-Mor-Army-Navy
Selkirk—Selkirk YMCA
Seneca Falls—Ceo & Rutz
Flynn's Boot Shop
Sherburne—D. K. Hodges
Sidney—Brook's Shoes
Silver Creek—Erbin's Surprise
Skaneateles—Roland's Mens & Boys
Smithtown—Smithtown Bootery
Snyder—S & W Shoes
South Dayton—B. Simon
Southampton—Boot Tree
Shoe Haven
South Westerlo—Charles Bogardus
Springfield—Mason's Shoes
Springville—Brown Shoes
Stephentown—Stephentown Agway
Stony Brook—Stony Brook Bootery
Syracuse—De Julio's Army-Navy
E. W. Edwards & Son
Reliable Farm Supply
Rochester Shoes
Salina Shoe Store
Syracuse Agway
Sam Young Shoes
Trout River—St. Onge Gen'l Store
Troy—Cooper's Shoes
Jim's Shoe Serv.
Washington Shoe Serv.
Utica—Revere Shoes
Seneca Boot Shop
Vermontville—Rogers' Store
Vernon—Vernon Army-Navy
Walton—Walton Agway
Warrensburg—Engle's Dept. Store
Warsaw—Van Slyke's Shoes
Warwick—H. Quackenbush & Son
Waterloo—Mazzoli Shoe Serv.
Geo. McMahon's Shoes
Watertown—Max Alpert, Inc.
Waterville—F. & G. Scorbo
Webster—Eastwood & Sons
Howard's Mens Shop
Wellsville—Wellsville Agway
Westerlo—Bob's Sport Shop
Westtown—Westtown Agway
Whitehall—Whiting Army-Navy
White Plains—Jack's Army-Navy
Murray's Army-Navy
Whitney Point—Barnes Gift Shop
Ken's Clothing
Wilson—Walker's Apparel
Windsor—Barron's Shoes
Windsor Agway
Wolcott—Edwards' Shoes
Gallo's Outlet
Wolcott Agway

NEW JERSEY

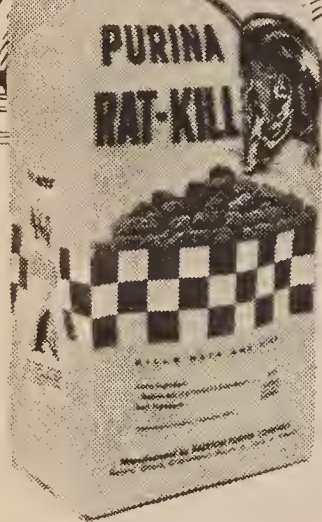
Bernardsville—J. Mastro Shoes
O. K. Shoe Store
Bricktown—Cascione's
Caldwell—Scientific Shoe Fitters
Clinton—No. Hunterdon Agway
Closter—Closter Bootery

Columbus—Agway, Inc.
Dover—Harris Shoes
Tip Top Shoes
Flemington—Arkay Shoes
Hunterdon Agway
Freehold—Al's Bootery
Hightstown—Farmers Coop. Assn.
Kendall Park—Strol-A-Way Shoes
Park Shopping Ctr.
Keyport—Feigenson's Shoes
Lazare's Shoes
Lakewood—Central Shoes
Little Falls—Little Falls Agway
Livingston—Jay's Shoe Box
Long Valley—Fred March
Madison—Shu Timers
Mantua—Ernie's Shoe Post
Millville—E. J. Fath Co.
Moorestown—Carl's Shoes
Morristown—Footmaster Shoes
Mt. Holly—Mt. Holly Agway
New Brunswick—Farmers Coop. Assn.
Niederman's Shoes
Gluck's Shoes
Newark—Uncle Sam's Shoes
Perth Amboy—Allyn Shoes
Phillipsburg—Harold's Shoes
Pompton Plains—Shoe Colony
Raritan—Raritan Valley Agway
Red Bank—Footcraft Shoes
A. S. Miller Shoes
Somerville—Bilrite Shoes
The Bootery
Woldin's
Sussex—Sussex Agway
Toms River—Purpur Shoes
Union—Trading Post of Union
Westfield—Andrews Shoes
Westwood—Vin Sam Shoes
White House Sta.—David's

PENNSYLVANIA

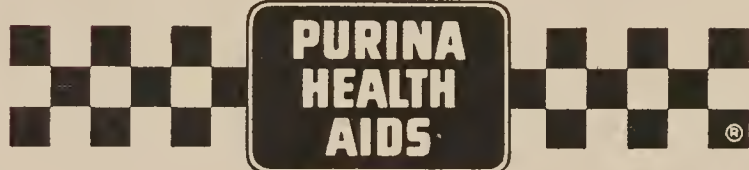
Atlantic—Valley Mills
Bangor—Oyer Shoes—both stores
Bloomsburg—Deihl's Variety
Glick Shoes
3 Brothers
Bradford—Oppenheim's Shoes
Catawissa—Royal Swan Mkt.
Conneautville—L. A. Glessman
Corry—Corry Agway
Keystone Fair
Coudersport—Carey's D. G. & Shoes
DuBois—Doyle's Army-Navy
Dushore—Bill's Shoes
East Earl—Harry M. Good
E. Stroudsburg—Famous Dept. Store
Elkland—Wynkoop's
Eric—Frazee's
Victor's Shoes
Factoryville—Dorman Plummer
Fredonia—Fredonia Milling
McCartney Feed Mill
Girard—Girard Shoes
Greenville—George's Bootery
Pringle Feeds
Hadley—A. F. Gilger & Son
Hallstead—Lloyd Wilder
Honesdale—Shoe Fair
Indiana—Ash Shoe Co.
Waxler's
Jersey Shore—Eck's Feeds
Kane—Hub Shoe Co.
Linesville—Huffman's Farm Serv.
Lock Haven—Lock Haven Bootery
Luzerne—Globe Dept. Store
Meadville—Burnison's Shoes
Factory Shoe Store
Meadville Co-op. Assn.
Miller's Shoes
Park Shoes
Mercer—Hogue's Shoes
J. Mongiello's Shoes
Mill Hall—Agway, Inc.
Richard Albright
Millerton—Hoyt's Feed Serv.
Millville—J. B. Ortwine
Montrose—Andre & Son
Morgan's Army & Navy
New Bethlehem—Robert's Mens Shop
New Milford—Houlihan Hardware
North East—Murray's Shoes
Oil City—Park Shoes
Old Forge—Murray Fallk Shop
Ridgway—Miller Mercantile
Sayre—Panosian Shoes
Sharping's, Inc.
Scranton—Shoe Fair
State College—Glick Shoes
Stillwater—Ritter's
Stoneboro—Mathay's Shoes
Titusville—Bird's Shoes
O'Neill's Shoes
Titusville Agway
Bargain Store
Tobyhanna—Grimley Sport Shop
Towanda—The Hub Store
Transfer—Edde Products Co.
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Wallace's Gen'l Mds.
Tunkhannock—Agway, Inc.
Union City—Union City Co-op. Assn.
Warren—Lester Shoe Co.
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QUESTION: What shall I give for Christmas?
What shall I read these long winter evenings?

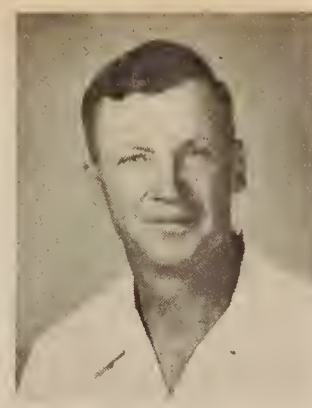
ANSWER: Ed Eastman's great new book—JOURNEY TO DAY BEFORE YESTERDAY.



This book won a CERTIFICATE OF SPECIAL MERIT at an exposition of the printing industry in New York City because it is so beautifully bound, illustrated and printed.

It will also win a special place in the heart of your father, mother or friend by guiding them down memory's lane when life was simple and uncomplicated.

You can get a copy of this beautifully-printed and bound book in album form, illustrated by many old-time pictures, by sending \$5.95 (New York state residents add 12¢ tax) post office money order or personal check to American Agriculturist, Book Dept., Savings Bank Building, Ithaca, N.Y. 14850.



Gayway Farm Notes

by HAROLD HAWLEY
Weedsport, New York

NO WINNERS

It seems to be regarded as a proven fact that whenever food prices go upward producers are (1) getting rich quick or (2) there is skulduggery somewhere, and people must pay more for food because of someone else's greed for profit.

The rise in food prices came not as a result of some handler of food increasing his margin (although, of course, individual cases of this might be found), but rather because of the shorter supplies this year as well as the strong consumer demand for various foods. Higher prices are the inevitable result of shorter supplies and an increase in demand. Part of this price increase has found its way back to the producers. This should embarrass no one, because the farm price of food has been low-low-low by any standard.

It was inevitable that when enough people began to clamor about the high cost of living the Administration would look for someone to blame. It would have made sense if they had admitted that the war in Vietnam, the expenditures for the Great Society, the waste in Government expenditures, and the rip-roaring increase in some labor contracts, had triggered higher prices of almost everything. Add to this the fact that government stocks were gone so there was no tool for the Secretary of Agriculture to use to knock farm prices down as he had done in the past.

As this is written, scores of housewives are "striking or picketing" against supermarkets. Obviously, this is hardly getting at the cause, but it does serve as an outlet for a lot of emoting. The thing that bothers me is that wages and salaries can and do rise over time, and yet the same people who are earning more money still think food should sell for the same price as always.

ATRAZINE AND RYEGRASS

All we know for sure is that every time we know something for certain sure, we are wrong. However, at the risk of being wrong and misleading others we will state that three years experience convinces us that we can seed ryegrass in corn fields sprayed with atrazine and get a good stand. This is of real importance to us, as ryegrass in the corn stalks is our winter heifer pasture. It is also insurance against muddy fields at harvest time and against winter soil erosion.

Incidentally, this business of

using oil as a "fixer" for the atrazine, based on one year's results, sure looks like a good deal.

It was getting pretty dry when we sprayed the last 75 to 80 acres of corn, and the kill was much better where oil was used even though the amount of atrazine was reduced. Any time we can cut cost and increase effectiveness we've got to like it well enough to use it again!

WHERE WILL IT END?

No single question comes up more often among dairymen than the one which asks where all this change will take us. Locally, the dropout from the dairy business is unbelievable. It is probably greater than in many sections because this is an area where there are many alternatives, such as cash crops and city jobs. However, farm labor shortages everywhere are a prime cause for discontinuing dairying.

At the same time that many are leaving the scene, others are tooling up to milk 100, 200, or 300 head. Where are we really going to shake out on this? I wish I knew.

All that seems clear yet, whether we like it or not, is that many more will leave dairying in spite of better milk prices. As to the other trend, maybe we're heading for California and Florida-type dairies of 500 to 2000 cows, but I doubt it. If you ask me what is to stop size at any given level, I have no answer except that we just may have quite a way to go yet to find the proper kinds of buildings, the best combinations of managerial decisions, and the know-how on disease control in large units. Of course, capital requirements to go to a large set-up aren't peanuts... yet, so far, the available supply of capital has not seemed to be a limiting factor for competent farmers.

If one really wants to get right down to cases, what is so different about the Northeast and California as to prevent some dairymen successfully going to the 1500 to 2000-cow size? Of course, building requirements are greater here because of colder weather, but the size of herd doesn't change this. In my opinion, we've barely started learning the best combinations of features for our cattle housing and milking needs, but if a 100-cow herd can do well in housing as it's known today this should not be the limiting factor for 2000 cows.

Obviously, to go to such a concentration of cows in one place

(Continued on next page)

American Agriculturist, December, 1966

probably rules out the growing of all the roughage as is generally the practice in much of the Northeast. But many New England dairymen always buy part or all of their hay. It certainly would be possible and probably feasible to buy hay enough for a really big bunch of stock. Likewise, replacements could be purchased... although there would be the added worry about herd health.

A couple of the other ingredients for success in a big venture are disease control and herd health. Some of the Western boys have gone through some real headaches on these, but I get the impression they have learned some useful things about handling a big concentration of cattle. Surely before launching on a big deal, a prudent dairyman would avail himself of their experience. In this connection, he would also make some kind of a deal with the best veterinarian available to him to have a claim to whatever portion of that vet's time he might need. Not to take such precautions and not to practice preventive medicine would be almost suicidal.

The next ingredient to be mentioned is managerial skill. While they certainly think bigger and have a background of operating large units, I'm not about to concede that the far western farmer has any corner on managerial skills. We have such men, too. I'm guessing it won't be long before some skillful and ambitious people are handling herds of cows of a size that we have only talked about so far.

WEIGH OR GUESS?

For years there have been tables which tell how many tons of corn silage a given size of silo will hold. What percentage moisture silage are we talking about? How much more will the same silo hold if the corn is chopped especially fine? Frankly, I've long had some doubt about these capacity tables but I'm even more skeptical now.

Last fall we weighed a couple of loads of silage. We assumed this year's loads to be about the same (4 tons) and applied urea at the rate of ten pounds per ton or forty pounds each load. Based on the amount of urea used, either our loads were nearer 5 tons or the silos hold less than rated. I'm inclined to think it was a case of a finer-chopped, extremely well-cared corn which weighed up heavier this year.

We've been unable to get any tables on haylage capacities for silos, and here again the variation in moisture and fineness of chop is great and important. When it comes to high-moisture chopped ear corn there is no help available. Here we are... wondering about our corn yields, both as silage and as high moisture corn.

We want intelligently to appraise haylage yields and values, and without yield figures as computed from the amounts stored there is little to figure from. We started getting concerned about this too

late this year, but from here on we are going to pull a few loads of each crop over the scales and keep count of our loads... at least long enough to learn what our storage capacity really is.

Most of us these days will be seriously weighing the pros and cons of corn silage vs. haylage, and deciding on the proper proportions we should be producing and feeding under the particular situations on each farm. With accurate yield figures these decisions up and down the road will be far better than can be made at present.

It is worth the time it takes to do some weighing to know what the fields that were picked for high-moisture ground ear corn really yielded. It's no longer possible to

measure up the space required to store the crop, multiply by a factor, and know how many bushels of shelled corn equivalent has just been harvested... not possible, that is, until we learn the actual tonnage and from it figure how many pounds of ground corn can be stored per cubic foot in a silo.

HOLIDAYS

It's a little like the weather. We holler about it but do nothing... if, indeed, anything can be done. This time I'm hollering about this business of starting the commercialization of Christmas so early. It used to be bad enough to start immediately after Thanksgiving.

I'm not sure when the promotions start, but it begins to seem like Hallowe'en and Thanksgiving are merely marker lines on the way to the big goal — a bigger and bigger sales total by the evening of December 24.

Of course there's a heap to be said for gift giving, and all the Christmas spirit that goes with the season as it has come to be celebrated. Sometimes, though, it does seem that the real reason for Christmas gets a pretty small share of the attention.

This need not keep any of us from letting the real meaning of Christmas fill our hearts and souls with joy and reverence. So to all of you from all of us at Gayway... Merry Christmas!

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WINS APPLESAUCE CAKE CONTEST!

by Augusta Chapman, Home Editor

IT WAS GETTING late, and I was getting panicky! I had called seven top winners in the American Agriculturist-New York State Grange Applesauce Cake Contest and given them the good news of their victories and prizes, but had tried time and time again without success to reach the first-place winner, Mrs. Clifford Dornan of Bliss Grange in Wyoming County. I could just imagine the reception I'd get from Grange delegates and members at State Session the next morning if I announced that the champion Applesauce Cake baker in the state didn't even know she'd won!

Finally Mrs. Dornan answered the phone and said they had been in Hamburg at State Grange all day, and then after getting home, she had helped Mr. Dornan with the chores. As is usually the case, she was very surprised and practically speechless to find out her cake had been judged the No. 1 winner.

Mr. and Mrs. Dornan live on a dairy farm and also raise potatoes. She has been a Granger for 28 years and Mr. Dornan for 43 years. Mrs. Dornan chose the Monarch "Early American" Electric Range, donated by Monarch Range Company, as her grand prize. She also received a 16-piece starter set of Carefree True China as a bonus prize from Syracuse China Corp., sterling silver salt and pepper shakers from International Salt Co., cash prizes totaling

\$53. — \$25 from Penick & Ford Ltd. because she used Davis Baking Powder in her cake, \$25 from American Agriculturist, and \$3 from State Grange — plus all the other prizes awarded the top ten winners.

Man Wins Second Place

I wish you could have heard the cheers when I announced that Mr. Milton Clark, a member of Adirondack Grange in Franklin County, was the No. 2 winner! Mr. Clark is employed at Alcoa Aluminum Corporation in Malone and didn't get through work until midnight. At two o'clock in the morning, he and Mrs. Clark with their two small sons, 3½ years and 8 months, started for Hamburg, arriving at 9:30. And possibly the most surprised person at State Session that morning was Mr. Clark's mother who was there as a delegate from her county!

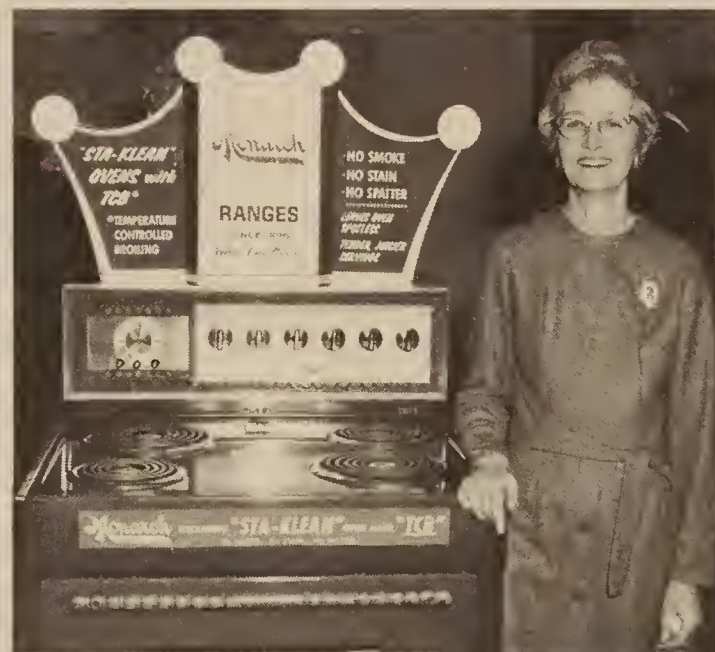
Mr. Clark will receive the Unico Portable Dishwasher from Agway, Inc., as his grand prize, sterling silver salt and pepper shakers from International Salt Co., \$20.00 from American Agriculturist, \$3.00 from State Grange, plus the miscellaneous prizes.

3rd and 4th Winners

Third-place winner was Mrs. Harold Loveless of Skaneateles Grange in Onondaga County. She received the 4-piece Coffee Service donated by National Grange Mutual Insurance Co., and \$18.00



Home Editor Augusta Chapman congratulates champion applesauce cake baker, Mrs. Clifford Dornan. From left to right in back row are other winners present at State Grange — Mrs. Richard Huey, Mrs. Joseph Calarco, Milton Clark, and Mrs. Lawrence Sauer.



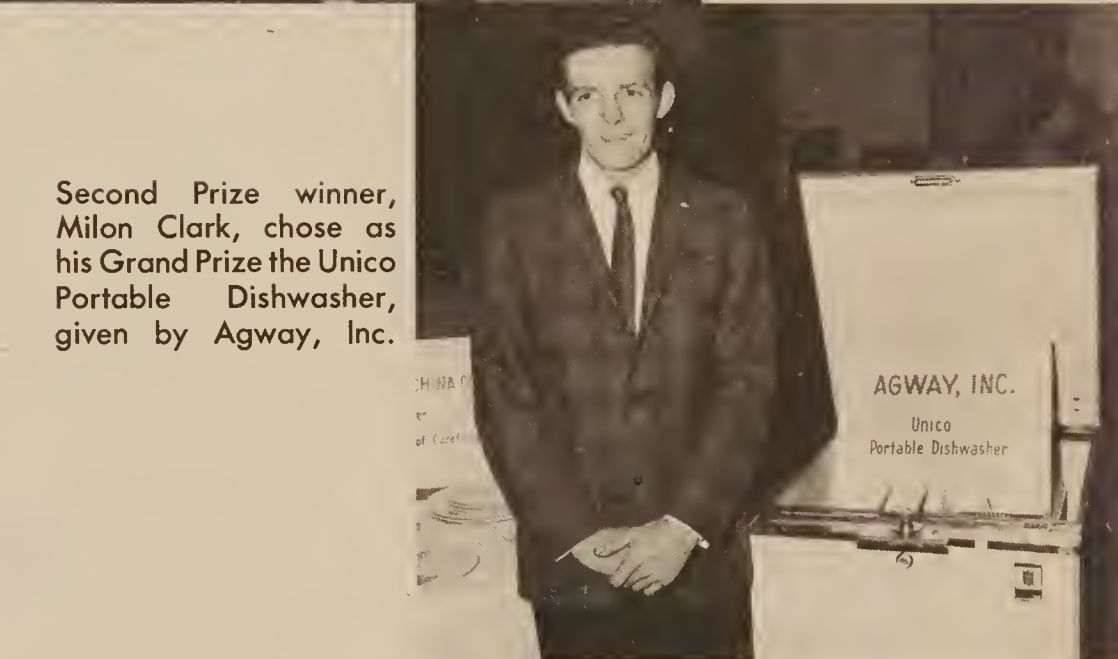
Mrs. Dornan had her choice of the Grand Prizes and selected the Monarch "Early American" Electric Range, a gift of Monarch Range Co.



Mrs. Harold Loveless, third-place winner, and the 4-piece Coffee Service she received from National Grange Mutual Insurance Co.



Winner No. 4, Mrs. Richard Huey, chose the Philco Stereo Phonograph, a gift from New York State Grange.



Second Prize winner, Milton Clark, chose as his Grand Prize the Unico Portable Dishwasher, given by Agway, Inc.

MRS. DORNAN'S APPLESAUCE CAKE

- | | |
|---|--------------------------|
| 1/2 cup margarine or other shortening | 1 teaspoon baking powder |
| 2 cups sugar | 1/2 teaspoon salt |
| 1 egg | 1 teaspoon cinnamon |
| 1 1/2 cups thick unsweetened applesauce | 1/2 teaspoon cloves |
| 1 teaspoon baking soda dissolved in | 1/2 teaspoon allspice |
| 1/2 cup boiling water | 1/2 cup chopped walnuts |
| 2 1/2 cups sifted flour | 1 cup seedless raisins |

Sprinkle 1 tablespoon of the flour over prepared nuts and raisins. Sift remaining flour with baking powder, salt and spices.

Cream shortening and gradually add sugar; add egg and beat well. Add applesauce and soda which has been dissolved in boiling water; then add dry ingredients. Beat well for about 3 minutes. Lastly, add raisins and nuts and mix well.

Bake in 350 oven for 1 hour. Makes one 8 x 12-inch cake.

15 TOP WINNERS

1. Mrs. Clifford Dornan, Bliss Grange, Wyoming Co.
2. Mr. Milton Clark, Adirondack Grange, Franklin Co.
3. Mrs. Harold Loveless, Skaneateles Grange, Onondaga Co.
4. Mrs. Richard Huey, Tyrone Grange, Schuyler Co.
5. Mrs. Joseph Calarco, Crystal Valley Grange, Yates Co.
6. Mrs. Lawrence Sauer, Fly Creek Grange, Otsego Co.
7. Mrs. Paul Williamson, Binghamton Grange, Broome Co.
8. Mrs. Bertha Phillips, Florida Grange, Montgomery Co.
9. Mrs. Helen Price, Tioga Grange, Tioga Co.
10. Mrs. Hector Roney, Potter Hollow Grange, Albany Co.
11. Mrs. Elizabeth Bowers, Perthshire Grange, Fulton Co.
12. Mrs. Ida Garrison, Montgomery Grange, Orange Co.
13. Mrs. Helen Mowris, East Chatham Grange, Columbia Co.
14. Mrs. Ethel Martin, Jewett Grange, Greene Co.
15. Mrs. Robert Long, Frewsburg Grange, Chautauqua Co.



Mrs. Lizzie Houck, co-director of the Applesauce Cake Contest, and daughter, Mrs. Joseph Calarco, admire a piece of Syracuse China in "Wedding Ring" pattern. As the No. 5 winner, Sue Calarco received a 64-piece set of china as her gift from Farmers and Traders Life Insurance Co.

in cash. Mrs. Loveless did not come to State Grange.

Schuyler County's winner, Mrs. Richard Huey, came in fourth and took home the Philco Stereo Phonograph which had been given by New York State Grange. She will receive \$13.00 in cash. The Hueys live on a dairy farm at Rock Stream and are members of Tyrone Grange. They and their two little boys also made the trip to Hamburg.

Winner No. 5

A young bride, Mrs. Joseph Calarco, was found to be fifth-place winner and chose the prize given by Farmers and Traders Life Insurance Co., a complete set of Syracuse China in the beautiful "Wedding Ring" pattern. Sue Houck Calarco, a member of Crystal Valley Grange in Yates County, is a daughter of Mrs. Lizzie Houck, this year's chairman of State Grange Service & Hospitality and co-director of our Applesauce Cake Contest.

Mrs. Lawrence Sauer from Otsego County was winner No. 6. She came to State Grange and took

home the lovely set of Community Silver complete with Hostess Drawer Chest, gift of Oneida Ltd. Winner No. 7, Mrs. Paul Williamson of Broome County, received the MEMO II Camera and leather carrying case from General Aniline & Film Corp.

8th place winner, Mrs. Bertha Phillips of Montgomery County, won the Hoover Dial-A-Matic Vacuum Cleaner given by State Grange.

Prizes to Top 10 Winners

Each of the 10 highest state winners received the following prizes:

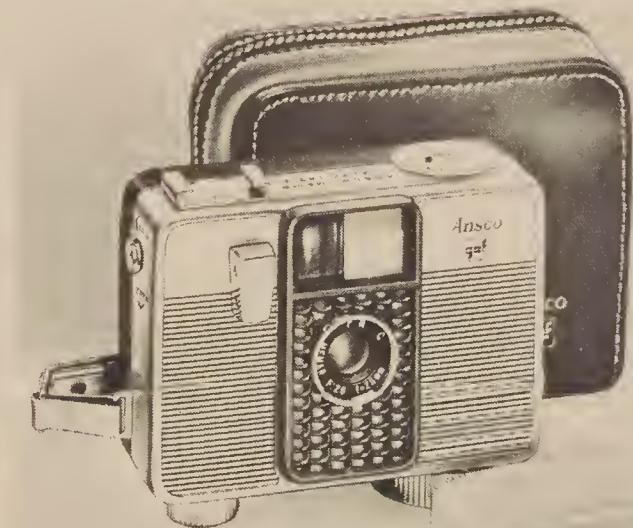
From Cuba Cheese & Trading Co., Inc.: A 5-lb. New York State Cheddar Cheese.

From Dairymen's League Coop. Assn., Inc.: A Cheddar Treasure Chest Dairy Cheese Assortment.

From International Salt Company: 6 packages of Sterling Table Salt.

From Penick & Ford Ltd.: A 24-oz. can Davis Baking Powder, 12 bottles of Brer Rabbit Molasses, a case of My-T-Fine Lemon Pie Filling, and several recipe booklets and baking charts.

Winner No. 6, Mrs. Lawrence Sauer, chose the set of Community Silver with Hostess Drawer Chest which was given by Oneida Ltd.



Mrs. Paul Williamson, 7th place winner, received this MEMO II Camera and carrying case from General Aniline & Film Corp.

From Revere Copper and Brass Inc.: A 1-quart covered Revere Ware saucepan.

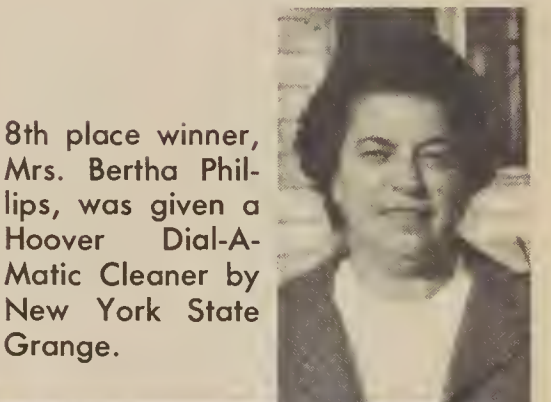
From Western New York Apple Growers Assn., Inc.: A case of applesauce plus an Apple Parer-Corer.

Cash prizes consisted of a \$3.00 entry prize from State Grange to each of the 53 county winners and \$107.00 from American Agriculturist distributed among the 15 top winners. Also, Penick & Ford Ltd. matched the A.A. cash prizes to those people using Davis Baking Powder in their prize-winning entries. Six winners qualified on this score, for a total of \$41.00.

Many People Helped

Lizzie Houck and I were assisted by the two other State Service Hospitality Committee members, Mrs. Mabel Hyatt of Owego and Mrs. Agnes Barrett of Whitesboro, plus nearly 1,000 Subordinate and Pomona S. & H. chairmen. A lot of work goes into these contests at every level, but it's so much fun each year at State Grange to see how thrilled and excited the winners are that we forget the work.

Next year's baking contest will feature rolled filled cookies. Plan now to enter it, and who knows, you may be a winner in 1967!



8th place winner, Mrs. Bertha Phillips, was given a Hoover Dial-A-Matic Vacuum Cleaner by New York State Grange.



Three well qualified judges worked seven hours the day of the contest. From left to right are Mrs. Mary Switzer, former Home Demonstration Agent; Mrs. Donald Danler, home economics teacher; and Mrs. Martha Nichol, Home Service Department, Iroquois Gas Co.

BHL



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It's natural for farm equipment manufacturers to take pride in their products. Sometimes to the point where their enthusiasm carries them away.

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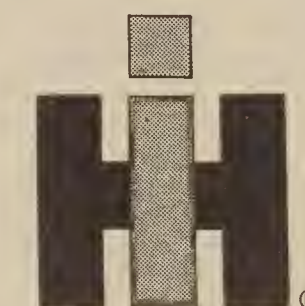
IH makes good farm equipment—a lot of farmers say better than most. In fact, many ideas from farmers are included in them. But we know that no matter how well-designed and built our products are, none of them count as much as the farmer who operates them or directs their work.

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we simply want to earn your belief that IH serves you best.

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First to serve the farmer

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IN southern Orange County, New York, over 30,000 acres of some of the best muck land in the country grow a tremendous volume of onions and other vegetables, including lettuce and celery.

Tony LaScala of Pine Island has been growing crops in the area for 35 years and is now operating 300 acres.

The first step in cultivating muck

is to drain the area with a system of ditches. But that isn't the end. The ditches tend to fill and must be cleaned, some every year, some at 3 to 5-year intervals. The cleaning is done on contract.

BLACK DIRT COUNTRY

by Hugh Cosline

"There have been great changes in onion growing," said Tony LaScala. "Costs have increased greatly, while prices are often lower than in previous years. In 1959, college specialists figured that the average cost of producing a bushel of onions was \$1.75. Now the figure is \$2.50.

"Labor costs more, equipment expense is up, and now compulsory workmen's compensation has been added to Social Security. The added book work is not small either.

"Fifteen years ago most of the tractors were crawlers. Now growers still own crawlers but they have added more and more large wheel-type tractors."

"Have varieties changed?" I asked.

"There are over 150 varieties of onions," replied Tony. "But most growers stick to 4 or 5. In general, the varieties that store best tend to have lower yields. Three types are grown — from seed, sets or plants — the latter being Spanish type. These plants formerly were from the South but now some are being grown here.

"Onions from sets are grown on a relatively small acreage. They are harvested in late July and are grown primarily to supply the demand for onions at that time. Onions grown from seed are harvested from August to late September. Usually the best yields (up to 700 bushels per acre) come where 15 to 18 onions are grown per foot. The best stand depends on the soil, on the amount of fertilizer, the variety, and the rainfall. Some years 12 onions per foot give the best yield.

"In the 1966 crop year," continued Tony, "onions tended to be smaller than normal. Generally, onions in this area are not irrigated. Water from the Wallkill river is used on lettuce and celery. Some dairymen in the county do some irrigating, and in 1966 most of the available water was used. We need a water district and perhaps more legislation to govern the use of water for irrigation."

Marketing

I have always been interested in marketing farm products so I inquired about the sale of the onion crop.

"Onions are sold here at the farm, but we deliver a lot of them in trucks which we hire. I feel that trucking and farming do not mix and we do not own any trucks. The onions go to most cities east of the Mississippi.

"In the fall, we take stock of our total yield. We store a lot of onions and figure how fast we should sell them so we will still have onions to sell until April 1. The amount we store depends on the U.S. supply and on the price. We stored 80 percent of the 1965 crop."

Erosion

One of the problems of muck farming is wind erosion. A high wind not only blows away good soil, it fills drainage ditches, and may actually blow away or cover up a growing crop. Tony is doing some experimenting with growing windbreaks. One disadvantage is that the growing bushes steal plant food and water from the growing crop.

Onions need plenty of plant food. Muck is naturally high in nitrogen and low in phosphorous and potash. Commonly a ton of commercial fertilizer per acre is put on each year.

Weeds have always been a problem. "Chemical weed control has helped," said Tony, "but it's not perfect. We put on three applications of weed killer . . . one liquid and two later in the form of granules."

It is quite obvious that Tony takes a justifiable pride in the area.

"You hear more about other areas," he said, "but this muck is deeper than most and covers a bigger area. In addition we have good people here. We ask nothing of government except to be let alone. We have very little crime and so far as I know no one is on relief."

That's a record we could all follow with profit!

American Agriculturist, December, 1966



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So who knows anything about footcandles? Niagara Mohawk.

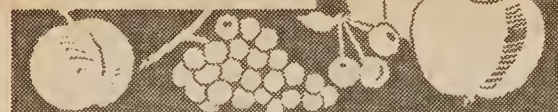
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FRUIT



Bulletin — Now available is a revised bulletin on the use of Triton B-1956 spreader-sticker in concentrate air blast sprays. The booklet also lists recommended use dilutions of the product in common spray applications for field and row crops, vineyards, orchards, and nuts. For copies of the bulletin, (SAN 432-3) write the Agricultural and Sanitary Chemicals Department, Rohm and Haas Company, Philadelphia, Pa. 19105.

Miticide — A new miticide for the control of European red mite and the two-spotted mite on apples and pears is being readied by Geigy Chemical Corporation for commercial use in 1967... pending federal registration. The product has been under test for several years in the major apple and pear-growing states, and control has been very effective. The tradename will be Acaralate, and it is an emulsifiable concentrate which can be applied in either dilute or concentrated sprays.

Trellis-Trained Apple Trees —

Dwarf trellis-trained apple trees are used successfully in orchards on the West Coast, reports Dr. Loren D. Tukey, horticulturist at The Pennsylvania State University Experiment Station. And they are currently being grown on trellises at the Station's Fruit Research Laboratory, Arendtsville, Pennsylvania... and some experiments are going on in New York State also.

Trellis-trained trees produce a high-grade fruit due to good exposure to sunlight and nearly 100 percent spray coverage. Meantime, the engineers at the Experiment Station are studying the engineering principles involved in shaking the supporting trellis wires, rather than the trees, to avoid limb damage, the effects of shaker frequency and stroke on the tree... and the most effective methods of vibration for maximum fruit removal.

New Fruits — Five new fruit varieties... an apple, three plums and a strawberry... have graduated from numbers to names. The Empire apple is a McIntosh type that ripens about two weeks later than McIntosh. It is noted for uniform size, high quality fruits, and excellent tree shape, and is intended for the fresh fruit market.

With the three new plum varieties it is hoped to bring back again to New York State a strong plum industry. The Iroquois plum is a very productive variety, and the tree is an early bearer, producing heavy annual crops. The fruit is medium-sized, and tests indicate it as being suitable for the manufacture of baby food.

The second plum, Mohawk, has a larger fruit, prune shaped and a deep attractive blue. It is con-

sidered good for the fresh market and for processing. And because it develops early, it is also recommended for home gardens.

Oneida, the third plum, bears heavy annual crops and has fruits that are medium to large in size. Since it ripens about October 1, scientists feel that it will be useful as a late variety to extend the season for fresh plums.

The Gala strawberry, which originated from a cross between Midland and Suwannee, is extra-early, large-fruited, moderately-firm, and good quality. Growers will have to watch out for late spring frosts, however, and it is recommended that it not be planted in low-lying areas especially subject to late frosts.



The mechanical apple harvester developed by a team of Cornell University researchers shows signs of becoming a multi-crop harvester. In 1966 the machine harvested tons of red tart cherries that met the approval of federal-state inspectors; plum harvesting posed no real problems; and the machine also picked pears and peaches. The picture above shows a researcher manning a long metal arm designed to shake the tree limbs, and a stream of pears riding the cross conveyor in the foreground.

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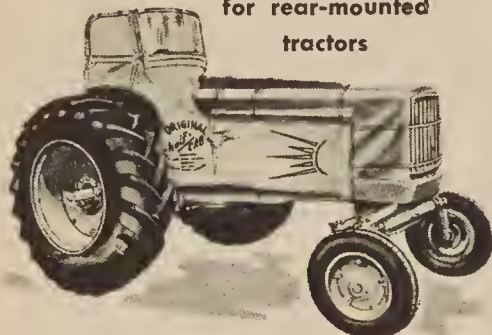


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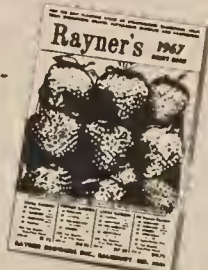
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LEUKOSIS STUDIES MAY HELP CURE HUMAN CANCER

RESEARCH on avian leukosis is helping medical scientists trying to solve the riddles of human cancer.

The two diseases are similar, although the poultry disease does not infect humans. There is strong circumstantial evidence, but no clear proof, that a virus causes human cancer. That virus, if it exists, is a near-relative of the viruses that cause avian leukosis.

Scientists thus gain clues that aid in their search for the human cancer virus from knowledge of this poultry disease. When . . . and if . . . a cancer virus is discovered, experience gained in trying to control avian leukosis will help in curbing it.

ARS scientists at the Regional Poultry Research Laboratory, East Lansing, Michigan, are among the leaders in avian leukosis research. They helped establish the fact that a filterable virus causes leukosis, and took part in studies during which the causative viruses were spotted through a high-power electron microscope and followed on their path from cell to cell in infected chickens. Now, the size, shape, structure, habits, weaknesses, ways of travel, and modes of action of avian leukosis viruses are known.

Protein Coat

Recently, the ARS workers helped show that one group of viruses involved in the disease lacks the protein coat which all viruses seem to need to infect chicken cells. These "defective" viruses spread by sharing the coats of other viruses that infect chicken cells. Since the coatless viruses by themselves appear non-infective, scientists think that the virus presumably involved in human cancer uses a similar dodge to appear harmless.

There are indications that the pattern of spread of avian leukosis

resembles that of cancer. The ARS poultry scientists found that specific types of tumors occurred more often in chickens of specific ages. Certain forms of human cancer similarly are most prevalent among people of certain ages. Children 3 to 4 years old, for example, most frequently fall victim to the blood cancer, acute leukemia.

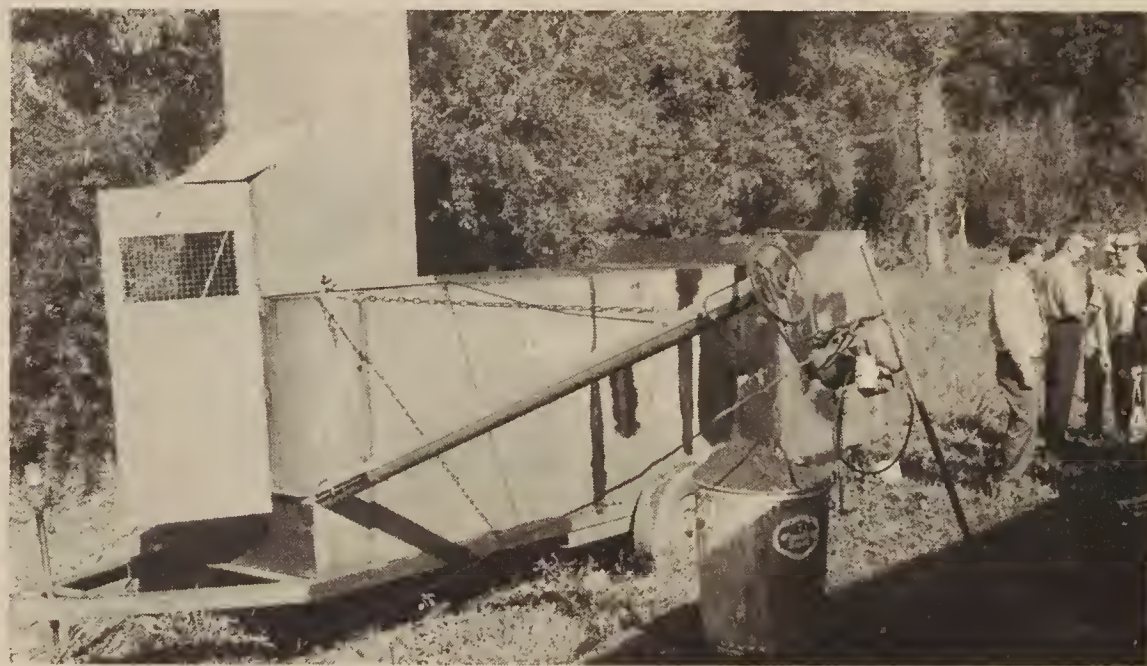
Usually only a few chickens in a flock infected with leukosis show disease symptoms. Human cancer also occurs without apparent contact between patients.

Carriers

The poultry scientists found that a day-old chick can carry billions of leukosis viruses in its body, yet live out a normal lifespan without developing disease symptoms. Cancer researchers suspect that the supposed virus that triggers cancerous growth in humans is present generally in the population . . . but affects only about 6 people out of 100,000.

Another ARS discovery raises the possibility of vaccination against cancer if a virus is proved to be the cause. The poultry scientists found that hens experimentally injected with leukosis virus produced baby chicks resistant to the disease. Antibodies to leukosis were apparently passed from parent through egg to offspring, even when hens were vaccinated with a dilute preparation of leukosis virus. To date, a vaccine for avian leukosis has not been developed because so many virus strains are involved.

Studies on the role of glands in triggering or preventing leukosis in chickens have led to research on the influence of glands on the incidence of human cancer. Possible anti-cancer agents have been screened in chickens; none so far is an effective preventive or cure.



POULTRY MANURE DRIER

An oil-heated poultry manure drier is being developed by Dick Green of the Egg-o-Rama Cage Plant at Spencer, New York. It is portable, and has 4 oil burners, each of which burns a gallon of oil per hour. The cost of operation is estimated at 50 to 60 cents per

hour, and it will dry the droppings from 30,000 laying hens.

Obviously, it will not be feasible for a relatively-small poultryman to own one. Disposing of poultry manure is a real problem in many areas, and time will tell whether or not a drier is the answer.

Everything in it cleans

Agway Cleanser chases greases, fats, oils; penetrates and loosens non-fatty dirt; softens hardest water for better cleaning action; leaves no streaks or water spots after simple rinsing.

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□ It's concentrated. Small amounts do the same cleaning job as big amounts of many well-known detergents.

□ It'll take hard road grime off your car, yet it's so mild it whitens and brightens babies' diapers safely.

□ It won't clog septic tanks because living organisms destroy it, are not destroyed by it.

□ There's nothing in it that doesn't clean. That's why it works so hard doing almost every cleaning and washing job you have around home and farm.

Agway Inc.,
Syracuse, N. Y.



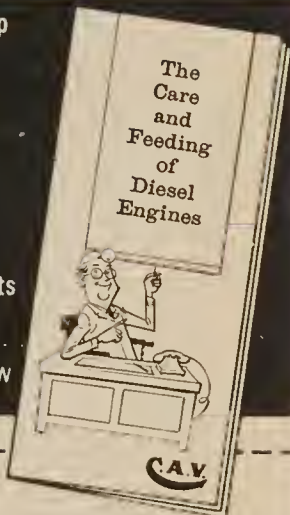
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INCOME TAX PLANNING

ACCURATE records and a little figuring during the first week in December can save tax dollars for the efficient farm manager. Income taxes, like most other farm expenses, can be reduced by good management.

In general, the less a farmer's net income varies from year to year, the less income tax he will have to pay over a period of years.

An Example

Since personal deductions and exemptions are allowed annually, any credit for such exemptions not absorbed by current income is lost. Here's an example:

John and Mary Bell have three children. The family's adjusted gross income one year balanced out to exactly zero; the following year it was \$7,400 . . . or an average of \$3,700. Tax paid during the two years was \$569.

Jim and Jane Smith also have three children. Their adjusted gross income one year was \$3,700, and the same for the following year . . . also an average of \$3,700 for the two years. But their two-year income tax was exactly zero dollars!

The Bells paid more income tax than the Smiths even though they had the same average net income for the two years. In the first year they failed to use up the \$3,700 that tax regulations permitted them to earn before paying any income tax (\$600 for each exemption plus the new standard deduction).

Higher Rates

Graduated income tax rates explain some of the losses farmers suffer when income fluctuates greatly. For example, on the first \$1,000 of a farmer's 1965 net income above the tax free amount, he paid \$140 income tax, on the second \$1,000 he paid \$150, on the fifth \$1,000 he paid \$160, on the tenth \$1,000 he paid \$220, and on the twentieth \$1,000 he paid \$280 income tax.

Perhaps a farmer will never be successful in keeping income perfectly level from year to year, but there are certain business transactions he can make or delay that will help even out yearly income. However, these business transactions must be made before the end of the year. The first week in December is a good time to estimate your net taxable income for the year, and decide on business transactions that may be necessary to alter it.

If you're on the cash method of reporting income, total your cash receipts to date and add anticipated December receipts. From this total, subtract expenses to date, anticipated December expenses, and depreciation estimates for 1966. Figure your personal deductions, calculate your tax and then allow for investment credit which will qualify for the 1966 tax year.

If your income and tax due is considerably higher than normal, you may consider the following

possibilities for leveling income by reducing it this year:

1. Buy fertilizer and lime for next year.

2. Purchase paint, fence posts, wire or other repair materials needed as part of the farm business.

3. Postpone livestock and crop sales where you wouldn't suffer price or weight reduction. Figure closely to make sure income tax advantages outweigh other management advantages.

4. Buy needed machinery before December 31, if you want to take 20 percent additional first year depreciation. But don't be panicked into buying unless you need the machine.

5. Check your records and receipts closely for expense items you may have missed.

6. Check the income averaging provision explained in Internal Revenue Service Document 5553. This information is available from your Internal Revenue office. (A special report "From G" is provided for this purpose.)

More Income

If your income is considerably lower than normal, you may consider these possibilities for leveling income by increasing it this year:

1. Sell livestock or crops ready for market, unless you are holding for seasonal price advances.

2. Charge for expenses and pay them in January.

3. Postpone buying advance supplies unless you get substantial discounts.

4. Don't take the 20 percent additional first year depreciation on machinery already purchased in 1966.

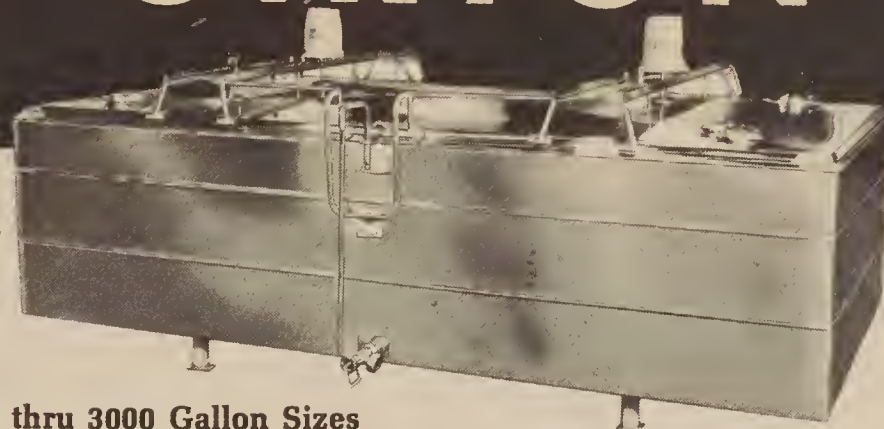
If you have any doubts about how far to go with these income leveling practices, check with your tax consultant or nearest Internal Revenue Office.

In all cases, check your records carefully for items you may have missed. Such things as farm truck and liability insurance, farm organization dues, farm publications, small tools, and machine work hired or performed, are sometimes overlooked.

Income management through end-of-the-year business transactions can only take place if you have kept accurate and up-to-date records of farm receipts and expenses. If you don't have an adequate record keeping system for such end-of-the-year analysis, county extension workers, private farm management consultants or commercial accounting services can help you set up a record keeping system.

There's a good publication available to help farmers with income tax management. It's the "Farmers' Tax Guide, Income and Self-Employment Taxes," 1966 edition, Internal Revenue Service, U.S. Treasury Department, Publication No. 225 . . . available from your county agent or from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

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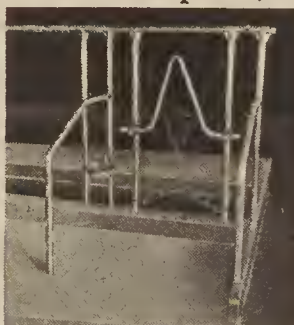


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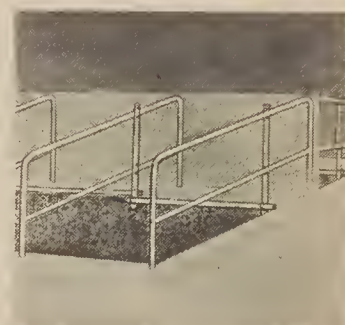
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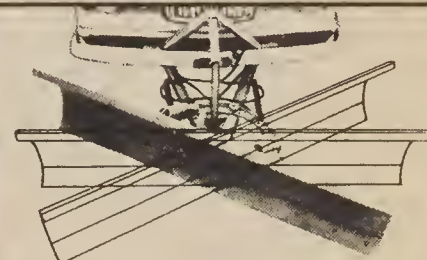
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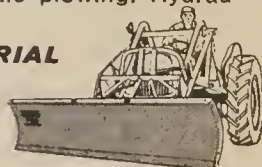


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OVERCOATS FOR PEACH TREES

by Amos Kirby
New Jersey Editor

SOUTHERN NEW JERSEY peach growers are putting overcoats on peach trees!

Heavy tree losses in recent years due to sudden temperature changes in late winter months are causing many growers to apply a protective covering to trunks and lower branches, to reduce the temperature spread that starts sap flowing, followed by extreme temperature drops of as much as 75 degrees in a matter of a few hours.

In the test orchards in Camden and Atlantic counties, tree-trunk temperatures drop from a high of 75 degrees on a sunny day to near zero (when sun goes down) in a matter of six to twelve hours, which causes the bark to split . . . and often results in the trees being killed.

Early tests being conducted under the supervision of the Experiment Station indicate that whitewashing has been beneficial. It has, however, one drawback in that by late winter much of the whitewash has been lost due to the weather. Tests are now being conducted with a white plastic material applied with a power sprayer. Boards

placed on the south side of the trees have also been found helpful; other materials are being tested.

Greatest losses have been with trees in the two to five-year age bracket. Similar losses have been experienced in Georgia, and both states are working on the problem.

County agricultural agent Leslie Miller, Camden County, a member of a special committee, is supervising the test plots on what has been one of the biggest peach problems in South Jersey in recent years.

MANURE DISPOSAL

One of New Jersey's major poultry problems is public objection to odors arising out of manure disposal. The New Jersey Poultry Association has established a legal defense fund to help when operators are taken into court.

A survey conducted in 1965 of 675 poultry farms reveals that 244 of them have a problem disposing of manure; 431 had no problems. A growing number of producers have been involved in court actions.

Two committees have been ap-

pointed to work on the problem. One will administer the expenditure of the legal fund; the other will investigate the alleged violator . . . and assure complainants that all reasonable and practical efforts have been made to correct any situation that may be offensive.

The lagoon system of disposal appears to be a cause of many of the complaints. This can be avoided in some instances if poultrymen make more frequent removals.

WASHED POTATOES

Consumers want their potatoes washed! This is the advice of Jack Lynch, director of the New Jersey White Potato Council. In a recent survey of 18 markets he found that 16 of them carried washed potatoes . . . only two displaying unwashed stock . . . and that consumers are buying washed in preference to those only graded. In consumer preference, too, I find that the five-pound consumer package for potatoes is the most popular.

FARM LABOR LAW

New Jersey's new farm labor law goes into effect on December 15, 1966, and to meet its requirements one needs a set of records that might involve a computer.

A wage contract is recommended. It may be a simple agreement,

in duplicate, written in ink or typed, and signed by the operator and the worker. It should include the amount of wages to be paid and the allowances for housing, food, etc.

The minimum wage rate is \$1.25 an hour. From this point on the problem becomes a bit complicated and could involve a legal advisor. The only deductions can be for social security . . . 4.2 percent by the operator and 4.2 percent by the worker. The only other allowable deduction is where wages have been attached under a court order. No money can be deducted to pay an employment agency; the farmer must pay this himself. One should pay help by check; the cancelled check may be valuable proof.

Allowances for rent, board or food purchased are a part of wages. Workmen's compensation must be carried on all employees working on the farm.

Records must be kept. The New Jersey Department of Labor have inspectors in the field checking for violations. Records may be in the form of a punch card, or a day-by-day record indicating when the individual starts work in the morning and when he quits in the afternoon.

Incidentally, do not get involved in collecting any money for any finance company.

DAIRY SUGGESTIONS

Three major possibilities for feed-short dairymen in the New Jersey drought areas are (1) brewers grains; (2) commercial feed mixes; and (3) bulk handling of concentrates.

Brewers grains are being used as a substitute. On a pound and dollar cost, they are about equal to corn silage. More grain is being used instead of buying hay. Most dairymen find commercial mixtures can be more consistent in feeding value than hay from other states. Concentrates or commercial feed mixtures at \$70 per ton are a better buy than \$45 to \$50 per ton for the hay that is available.

These are the top recommendations for dairymen who have to do some stretching of homegrown supplies. Much of the Jersey corn crop grown for grain has ended up in the silo, and dairymen must turn to other substitutes for the normal corn from the crib or the bin.

There will probably be some grain purchase under the emergency disaster program, but prices will not be as low as in former years. It is still unofficial, but emergency grain prices most likely will be about 90 percent of parity instead of the 70 percent that was paid two years ago.

Ivan Crouse, dairy agricultural agent, Salem County, provides these yardsticks as guideposts:

If buying hay, make purchases on quality basis . . . and even the best of hay prices may be out of line with other feeds that may be available.

There is no one system that will apply to every farm; each has its own feed problems.

American Agriculturist, December, 1966



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FARM DOLLAR GUIDE

SUPPORT PRICE for manufacturing milk will continue at present levels (\$4.00 per cwt.) at least through April 1, 1968. Market prices in recent months have been above support levels.

LEUKOSIS research has not revealed as yet any simple answers like completely-resistant stock or vaccination. Best advice is to reduce losses from acute outbreaks by complete cleaning and disinfection of all poultry houses, and complete isolation of each age group from birds of other ages.

FERTILIZER SHORTAGES next spring are a possibility because of 25 to 30 million more acres under cultivation in '67. More important than usual to get early delivery with accompanying price discounts. Also, some chemicals for control of weeds, insects and diseases may be short. Order early!

WEIGHT has more effect than age on the first heat of heifers. Dr. R. G. Warner of Cornell reports that the first sign of heat in a group of heifers came at about 610 lbs. of live weight, or when height at the withers was around 45 inches. This size was reached at different ages ... 20 or 11 or 9 months in heifers fed at a low, medium or high level of nutrition respectively. There is no evidence that heifers are harmed by being bred to calve between 22 and 24 months of age.

IF SHORT OF HAY, the best course of action may be to ration the available hay so it will last. However, usual rule is that a cow should get 1 lb. of hay equivalent (3 lbs. silage with 30 percent dry matter equals 1 lb. dry hay) per 100 lbs. of body weight. Then more grain will be needed to enable a cow to produce up to her full ability.

NEW ALFALFA VARIETY, called Mark II, has been released by researchers at Cornell. It grows vigorously on imperfectly-drained land, and will do better than Narragansett on some soils. Seed supplies are adequate for the '67 seeding season.

HYBRID WHEAT for Pennsylvania farmers by 1971 is the prediction of Professor Robert P. Pfeifer of Penn State. Northeastern wheat yields are expected to increase substantially when hybrid wheat seed becomes available.

The Song of the Lazy Farmer

My neighbor's moaning low today about the tax bill he must pay. He says that he must, pers'nally, be building all the roads, by gee; and he can't

see why any fool needs so much cash to build a school. "I'd guess," he says, "no one but I helps keep the air force in the sky. My bill has kept on getting worse, now it would make a churchman curse; it looks as if the government has no place else to get a cent. Sure, I have gained on what I've sold, but that don't mean I'm made of gold; it makes no sense to earn a bit if taxes soak up all of it."

Of course, I'm sorry as can be, my heart is full of sympathy; poor neighbor needs an armored tank to take his money to the bank, so it's unhandy as can be to draw it out again, by gee. The trouble is, he makes too much on steers and hogs and wheat and such; he works all day while I relax, and I pay hardly any tax. I let my weeds and gullies grow to keep my valuation low, my income tax is reas'nable because my wallet's never full. I'm sure my system is the best 'cause there's no tax at all on rest.



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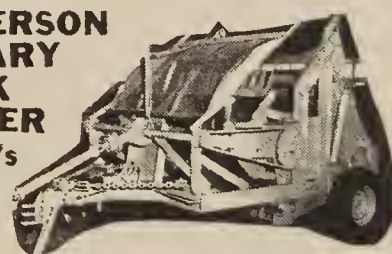
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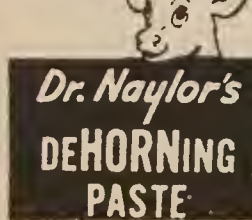
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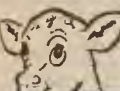
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American Agriculturist, December, 1966

STUDDED TIRES

Tests by the National Safety Council show that studded snow tires give better traction on icy pavements than regular tires, but that reinforced tire chains provide still better traction, according to Professor A.H. Easton, Director of the Motor Vehicle Research Laboratory at the University of Wisconsin, Madison.

“Verifying earlier test results, the 1966 findings show that the use of new studded snow tires on the rear wheels of a vehicle will, on the average, reduce braking distance from a speed of 20 mph on glare ice by 21 percent as compared with new highway tires, but that much of this advantage is lost after 5,000 miles of wear,” said Professor Easton.

“Under similar conditions reinforced tire chains on the rear wheels will reduce braking distance by approximately 47 percent,” he added.

Since some tests by other research groups have indicated that studded tires may actually reduce traction on bare pavements, Easton added that the Committee also made a limited investigation of this aspect of studded tire use, but that no significant loss of traction was detected.

Based on these and previous test findings, according to Easton, the Committee on Winter Driving Hazards points out that conventional snow tires are better than conventional highway tires for use in mild-to-medium snow and ice conditions; that studded snow tires are more effective on ice; and that reinforced tire chains are best for severe snow and ice conditions.

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Decorating for Christmas

by Dorothy Welty Thomas



The mantel in Mrs. Thomas' home as it was decorated for Christmas last year. Carved wooden deer and angel candleholders rest on a bed of evergreens, interspersed with sprigs painted white and dotted with the tin can and aluminum pie plate ornaments.

ALMOST EVERYONE has occasion to decorate tables for Christmas parties either at home, at church, or in a community hall. Here are some ideas we used last year and directions for making inexpensive ornaments at home.

For a party in a restaurant, the tables were arranged in a "U" shape and covered with white tablecloths. First we placed the candleholders, alternating red and white candles. Next we laid a bed of greens down the middle of the table. We used short lengths of

mixed greens — hemlock, cedar, spruce, and a little pine, cutting the branches from 6 to 12 inches long and overlapping them.

Then we placed alternating red and crystal cellophane bows (about a foot long and five inches wide) on the greens, between the candleholders. Finally, we arranged silver and gold homemade ornaments on the greens. We will tell you how to make these later in the article. For the head table, we bought a bouquet of white chrysanthemums, red berries, greens,

and tiny red tapers. This bouquet, of course, could be omitted.

Another table was at a church party where each "circle" had a table and decorated it differently. The one I want to tell you about was done in blue, green, white, silver and gold, with no red at all. We made "snowflake" place mats (about 15 inches across) from blue and green striped madras tissue paper and used white paper napkins with them.

In the center of the table, we

put a small clear plastic Christmas tree and decorated it with tiny blue, gold and silver balls. Glass candleholders with dark blue candles were placed at each end of the table. On a bed of greens down the center of the table, we placed small cedar branches that had been painted white, being careful that they didn't cover too much of the green underneath. Then for sparkle, we again used some of the gold and silver ornaments made from tin cans and aluminum pie plates which we tell about below.

* * * * * Homemade Ornaments * * * * *

No. 1 — Cut both ends out of tin cans — preferably juice and soup cans, although larger ones can be used. Cut with tin snips as per diagram, turning up alternate "petals" of the flower that is made. If you want gold on top, hold the metal with the gold side down while cutting, as there is a tendency for the sections to turn down while you cut. For more glamorous ornaments, paint or dip the flowers in shellac or glue and sprinkle with glitter.



tin can flower

No. 2 — Cut the centers out of aluminum pie plates and cut the same way as you did the can tops. These are larger and easier to cut, and they are prettier if you keep the cuts fairly close together. Then curl each section on a pencil, curling the first one up, the next one down, etc. Individual frozen pie tins make small balls of curly silver, and the family-size pie pans make "curlies" three or four inches in diameter.



aluminum pie-tin ornament

Cellophane Bows

Cellophane comes in many colors, so use your imagination as to color scheme. Using small rolls, unroll the cellophane and fold in accordion folds, 12 inches one way and then 12 inches the other. Keep on folding until you have used up the roll.

The cellophane is 20 inches wide, so cut it off in 5-inch slices, which will make four bows to a roll. Pinch the center and wrap with cellophane scotch tape. You can "hide" the tin can flowers in the loops of the bows for an interesting effect. This works particularly well with the crystal cellophane.

Painting Evergreens

The best way to paint greens is with a pressure spray can of lacquer. However if you have bits of paint on hand, apply it with a

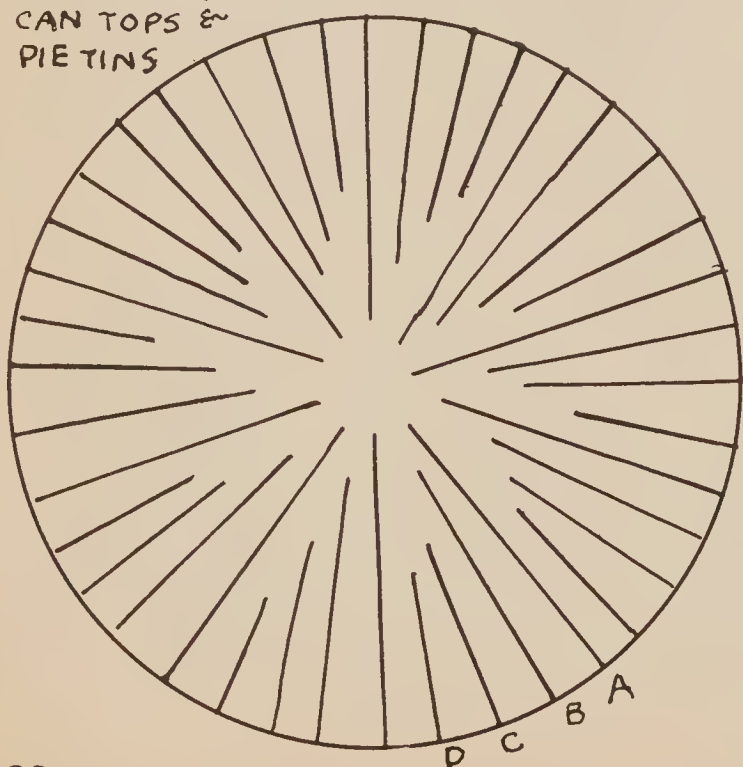
brush. House paint takes a long time to dry, so put greens on an old piece of screening laid across a pair of trestles for the air to circulate. Kemtone dries more quickly.

Snowflake Mats

Cut a 15-inch circle (A) from white or colored tissue paper. Fold in half (B) and fold again in thirds (C) to make a wedge shape (D). Then fold again in half and cut outer edge in irregular scallops like (E). Cut perforations and unfold.

Snowflakes are always 6-pointed figures, so from the same beginning you can make many variations, and they may be as lacey as you wish. Just be careful never to cut away all of either folded edge (E), or the snowflake will fall apart. Smaller ones can be made to use wherever you like. Press with a warm iron.

DIAGRAM for CUTTING TIN CAN TOPS & PIE TINS



Cut one long slash (A) from outside toward center, leaving a little space in the middle. Make cuts B, C, and D, each shorter than the previous one. Then cut another long slash similar to A and repeat this process around the circle, working from right to left. Be sure all cuts radiate toward center, but that some metal is left to hold it all together.





Photo: Westinghouse Electric Corp.

Two floodlights placed on the lawn and focused on the doorway prolong the enjoyment of these Holiday decorations into the evening hours.

LIGHT UP for the Holidays

by Nenetzin R. White

AT CHRISTMAS TIME, it's fun to hang colored outdoor lights on the evergreens in your foundation plantings or on an isolated evergreen tree, and this is a rather frequent sight as we drive along our highways and streets. Why not do something a bit different this year and floodlight your plantings?

Nearly all department or electrical supply stores now handle several kinds of inexpensive outdoor floodlights. You can buy these with spikes to stick into the ground and with adjustable light holders, so you can angle the light any way you wish.

You can purchase bulbs in several colors too. Even one soft blue bulb, for instance, placed 20 or 30 feet away from a white house and focused upon it, will produce dramatic effects. You can produce a color complementary to the color of your building or accent its color.

If you have planter boxes, tubs, or large containers that are filled with annuals in the summer, it's a simple matter to fill these with

small cut Christmas trees, or even artistically arranged branches of greens. Tie colorful balls, plastic ribbons, ornaments or tinsel on these and floodlight them. Use several branches tied in a graceful arrangement and hang it in the center of your door. Floodlighting here will be dramatic too.

All-winter Enjoyment

If you are fortunate enough to have an interesting deciduous tree or a group of them near the house, they can be made most attractive by simple floodlighting. The branch structure of huge old lilacs, hawthorns, flowering crabapples, and such is unusual, and lighting makes them most gay whenever snow covers them during the winter.

Try lighting for fun, but here's a word of caution. Better get Dad in on the electrical connections because he will know that one doesn't fool around with electricity with wet mittens on or when the ground is damp. Also, you should be sure that the outdoor lights and equipment you use carry the Underwriters' Seal of Approval. Perhaps your local utility company has bulletins available on outdoor lighting which will be helpful.



THE THREE WISE MEN

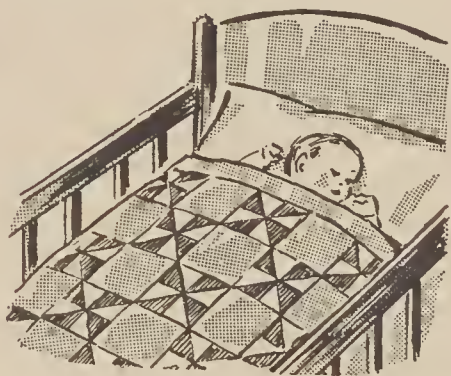
by Roy Z. Kemp

Their place in history was brief,
These men who came afar
And brought their wondrous gifts to Him,
Led by His shining star,
Their hearts aflame with faith and love.
What happened then to them
Who came, who saw, who gave, and then
Departed Bethlehem?

How strange, how sad, we are not told
About their later lives,
When each returned to loved abode,
To children and to wives.
But each of us can easily
Believe that all of them
Were made much wiser, better by
Their trek to Bethlehem.

American Agriculturist, December, 1966

REVISED QUILT BOOK



A collection of 12 delightful coverlets for the crib! Revision of Young Folks Quilts Q-104, with some old numbers omitted and 7 new ones added. Some to embroider, some to applique and others to patch — all easy to make with patterns and directions included.

To order, send 50 cents to: American Agriculturist, Pattern Dept., 1150 Avenue of the Americas, New York, N. Y. 10036.

Make 1967 Your Year To See Europe



Springtime in Spain -
Tour Departs in April



Stockholm - City on the Water

May in Mainland Europe - Belgium, Switzerland, Germany, Italy, France. (left) Summer in Scandinavia - Tour Departs in June. (rt.)

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☐ Summer in Scandinavia ☐ September in British Isles

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Address _____
City _____ State _____ Zip _____

PLEASE PRINT



Christmas Gifts for Your Kitchen

by Alberta Shackelton

CHRISTMAS MEANS gayly wrapped gifts from many a cook. This year, in addition to goodies from your kitchen, why not plan to give some special kitchen items — "Gadgets for Gourmets," I like to call them — which can add glamour touches to everyday foods.

Some, like attractive copper molds in various sizes and shapes or certain prized collectors' items, properly displayed, can add a decorative touch and gay motif to kitchen walls and shelves. Others can be real time-savers, and many can be used for several purposes. You may even want to add some of these to your own Christmas

gift list!

Pictured on this page are some suggested gift items for the kitchen, and in the catalogs of the companies listed below, you will find many more interesting Gadgets for Gourmets. Send a request for any of the following catalogs:

Maid of Scandinavia, 3245 Raleigh Ave., Minneapolis, Minn. 55416.

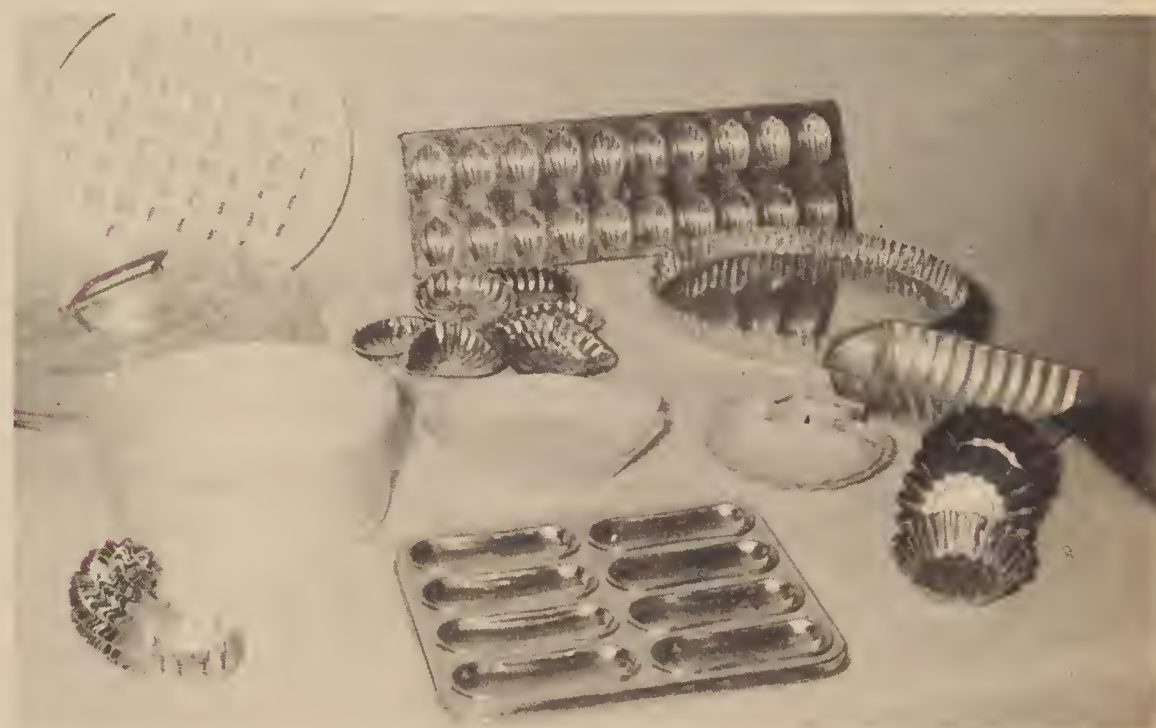
Gifts and Gadgets of Dallas, 6327 Gaston Ave., Dallas, Texas.

Miles Kimball Company, 41 West 8th Ave., Oshkosh, Wis. 54901.

Bazar Francais, 666 Sixth Ave., New York, N. Y.



Molds for Many Uses: Decorative and useful copper molds on peg board, 3-pc. spring form baking set, crown and spiral molds, tower mold (in center), Turk's head and steamed pudding molds.



Assorted Items for Baking: Lattice top pie crust cutter, Madeleine cookie pan, covered pie pan, Swedish Sandbakkelse and removable-bottom tart pans, nut bread pan, French souffle dish, individual "au gratin" serving dishes, natural "scallop" baking shells, eclair pan, and fluted tart shells.



Photo: Foley Manufacturing Co.

Housewares to Make Holiday Preparations Easier: Roasting pan with adjustable rack, nylon baster, carving grip (shown hanging), food mill to strain cranberries and mash sweet potatoes, and pastry cloth in frame with rolling pin cover to ease the job of pie making.



Assorted Small Gadgets (from left, top section of photo): Moulie nut grater, rolling mincer, Blitzhacker chopper, apple corer and wedger, sealed cookie and tart cutter. Springerle cookie rolling pin; wafer leaf stencil, rosette irons with handle, graduated measuring spoons, small fancy cutters.

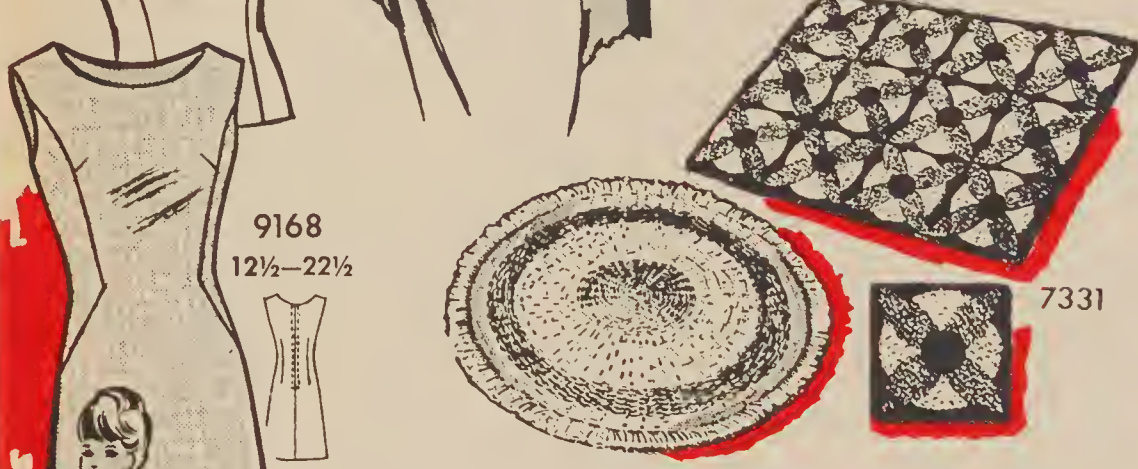
Bottom section: Pastry mixer and salad tosser, French pastry whisk, fruit and potato baller, pastry wheel and crimper, butter curler, egg slicer, vegetable decorating cutter, wooden spoons, grapefruit knife, pastry brush, and French knife.

The **AA** Clothes Line

4911. Curvy fashion with a smart petal collar. **PRINTED PATTERN** in Misses' Sizes 10-18. Size 14: 4911 2-5/8 yards 39-inch. 35 cents. 10-18

7426. Popular "Poor Boy" top to knit sleeveless, or with short or long sleeves. Directions for sizes 32-34; 36-38 incl. 35 cents.

969. Cozy beret and circlet collar to knit of mohair. Brush for the furry look. Directions for set to fit all sizes. 35 cents.



All Printed Patterns

9168. Smart jumper, roll-collar blouse. **PRINTED PATTERN** Half Sizes 12½-22½. Size 16½ jumper: 2-1/4 yards 45-inch. 35 cents.

7331. Learn to braid, weave, hook and crochet rugs. Directions for 9 different rugs. Patterns, list of materials needed. 35 cents.

4530. Scallop-trimmed skimmer. **PRINTED PATTERN** in Half Sizes 12½-22½. Size 16½ takes 3 yards 35-inch fabric. 35 cents.

739. Knitted jacket, trimmed with embroidered roses. Easy directions for sizes 32-46 incl. Actual-size transfer. 35 cents.

7462. Pretty aprons, potholders to match pockets. Printed pattern for aprons, transfers for pockets and potholders. 35 cents.

EXTRA! 125 Wonderful Fashions in our Fall-Winter PRINTED PATTERN CATALOG. One free pattern — clip coupon in Catalog. Send 50¢ now. Order your 1967 jumbo **NEEDLECRAFT CATALOG.** Over 200 designs — fashions, accessories, crafts. 2 free patterns in Catalog. Send 25¢ today.

Value! Get 25 complete patterns for luxury decorator accessories in brilliant DECORATE WITH NEEDLECRAFT. Be smart, send 50¢ for your copy.

DRESS and NEEDLEWORK PATTERNS are 35¢ each. Add 10¢ each for 1st-class mailing and special handling. Send orders (with coin) to: **AMERICAN AGRICULTURIST, Pattern Dept., Box 42, Old Chelsea Station, New York, N. Y. 10011.** Write name, address, pattern size, numbers clearly.

WORK HORSE



No Boot outwears Red Ball. Firmly anchored rust-resistant buckles. Made to take hard wear. Made to keep you warm. Snow-tire grip. Completely waterproof. Available in men's, boys' and youths' sizes. **Red Ball Arctic** look for the Red Ball by Ball-Band, Mishawaka, Indiana

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29 full days

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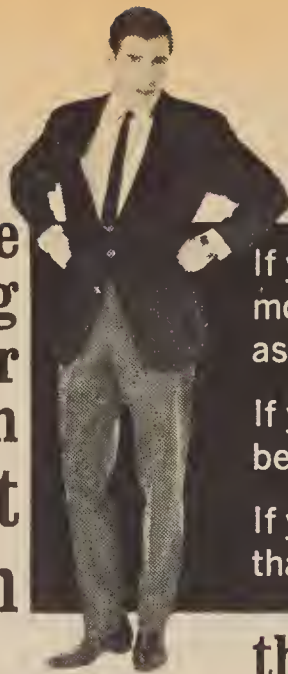
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Please rush me free information on the American Agriculturist - TSB Holiday in South America.

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City _____ State _____ Zip _____

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If you're impatient to move ahead just as fast as your ability warrants . . .

If you're impatient to be your own boss . . .

If you're impatient to do a job that helps your fellow man . . .

then . . .

You'll want to become a representative of the Farmers and Traders Life Insurance Company, the Grange-sponsored life and health insurance company.

Not only will this career offer rich rewards financially, but you'll also have the satisfaction of doing a service that helps others.

If you're this kind of man we can use you — now! **WRITE WALLY KEMP**

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HARRIS SEEDS

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The finest of quality—Large attractive fruit—Early ripening but long bearing season—Firm, meaty structure—Brilliant red flesh.

The one tomato that combines them all is **HARRIS' MORETON HYBRID** available only from Harris Seeds.

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Science Shrinks Piles New Way Without Surgery Stops Itch—Relieves Pain

New York, N. Y. (Special) — For the first time science has found a new healing substance with the astonishing ability to shrink hemorrhoids and to relieve pain — without surgery.

In case after case, while gently relieving pain, actual reduction (shrinkage) took place.

Most amazing of all—results were so thorough that sufferers made aston-

ishing statements like "Piles have ceased to be a problem!"

The secret is a new healing substance (Bio-Dyne®)—discovery of a world-famous research institute.

This substance is now available in suppository or ointment form under the name *Preparation H®*. At all drug counters.

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SPECIAL GARDEN SEED COLLECTION

2 Sweet Corn \$1

2 Summer Squash Postpaid

SPECIAL CORN COLLECTION

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Lots of Delicious, Full-size Fruit in Small Space!



Grow your own tasty apples, juicy plums, pears, peaches, cherries, apricots. Home grown tree-ripened fruits have more flavor. Dwarf trees grow in little space, bear young. We have 35 kinds of dwarf trees. . . . Catalog describes new grapes, berries, nut trees, blueberries, strawberries, flowering crabs; ask for it.

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The A A Clothes Line



5207

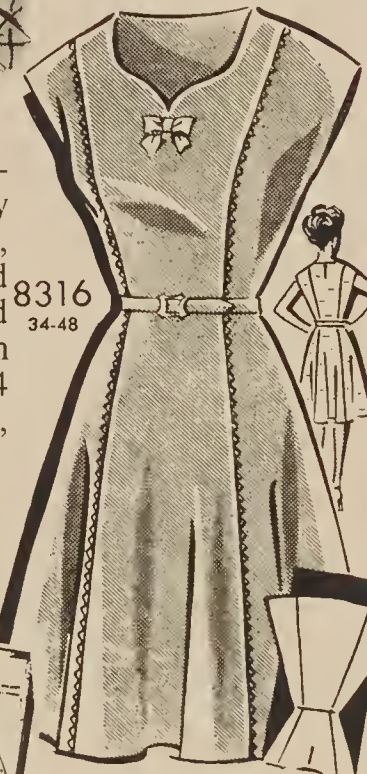
5207. A delightful show-piece quilt uses one simple piece to create the diamond block design. To complete just stitch together and bind the edge. Pattern piece, directions included.

8342. The style with classic good taste is cut to flatter the half-size. With PATT-O-RAMA in sizes 12½-26½. Size 14½, 35 bust, 4⅞ yards of 35-inch.



8342
12½-26½

8316. The attractive features include a gently fitted bodice, flared skirt, pretty bow-touched sweetheart neckline and ric-rac trimming. With PATT-O-RAMA in sizes 34 to 48. Size 36, 38 bust, 2⅞ yards of 45-inch.



8316
34-48

5154. A lovely butterfly lights upon these warm and cozy shell-stitch crocheted slippers. Directions for sizes small, medium and large sizes incl.



Small
Medium
Large
Crochet

5154



5224



5224. A lacy blouse that's easy to knit or crochet displays the added sparkle of a shining paillette trimmed neckline. Crochet and knit directions for sizes 32 to 42 incl.

SIZES 32-42

Crochet or Knit

8303, 8304. Charming yoked design to outfit both mother and daughter. With PATT-O-RAMA. No. 8303 in sizes 9 to 18. Size 11, 31½ bust, 3⅞ yards of 35-inch. No. 8304 in sizes 3-8 years. Size 4, 2⅞ yards of 35-inch. Two patterns.



8303
9-18

8304
3-8 yrs.

SMALL
MEDIUM
LARGE

KNIT

5214



2990
18 INCHES

2990. Lend a decorative touch to your home with a gingham smocked cushion. Pattern piece, directions.

5214. Handsome hood-sweater guards youngsters against winter weather. Knit directions for sizes 4-14 inclusive.



PATTERNS are 35c each. Add 10c per pattern for 1st-class mailing. Send orders, with coin, to: **AMERICAN AGRICULTURIST**, Pattern Dept., Box 220, Radio City Station, New York, N. Y. 10019. Write name, address, zip code, pattern number and size clearly.

Send 50c more for the latest issue of our pattern magazine **Basic FASHION**. Every pattern features our exclusive **Photo-Guide**. Also, our **Needlework ALBUM** is filled with a wealth of handwork designs. Send 50c for your copy.



SERVICE BUREAU

AN ANCIENT PRAYER

Give me a good digestion, Lord, and also something to digest;
Give me a healthy body, Lord, and sense to keep it at its best.
Give me a healthy mind, good Lord, to keep the good and pure in sight;
Which, seeing sin, is not appalled, but finds a way to set it right.

Give me a mind that is not bound, that does not whimper, whine or sigh.
Don't let me worry overmuch about the fussy thing called I.
Give me a sense of humor, Lord; give me the grace to see a joke,
To get some happiness from life and pass it on to other folk.

— Thomas H. B. Webb



It is easy to become disillusioned and skeptical when we are constantly writing of unhappy experiences of one sort or another that our readers have had, or printing warnings against certain types of operation of which to be wary.

At this happy season, however, it is important to remember... in spite of these stories of fraud, misrepresentation, or poor workmanship... that for every unscrupulous operator or gyp outfit there are hundreds of honest, hard-working men selling their products or services. We must not condemn all salesmen because of the few "bad apples." As customers, our responsibility is to be aware of the pitfalls and possible swindles and to deal only with reputable businessmen.

So let's forget all fraud and folly; "Tis the season to be jolly!"

IT'S A PLEASURE

Through our Can You Help and Addresses Wanted items we have helped many readers find the words to well-loved songs and poems and locate long-lost friends and relatives. An interesting thing about these items is that so many who read them are anxious to help. Some requests have brought so many replies that the recipients tell us they are unable to acknowledge them all.

Here is one happy letter:

"Sorry to be so long in letting you know of the help you gave us in locating our brother. After being 'missing' for 20 years, he was located within 50 miles of another brother through people talking and contacting others about the item in your paper.

"Our hearty thanks to you all."

Because of the tremendous number of requests we receive, it often takes a year or longer to publish them. Whenever possible we try to answer the request ourselves rather than hold it up for printing. A short time ago, a subscriber wrote

that her 93-year-old mother was anxious to get the words to the poem, "Seven Times One." Happily, this was one familiar to us so we sent her a copy and received the following note in reply:

"Thank you for making Mother so happy. She cherishes your letter and the enclosure and is reading them to everyone. She is planning to send copies of the poem to her great-grandchildren in New York, Tennessee, and Idaho, including a note to each youngster telling of her recitations at the one-room schoolhouse.

"Thank you again and may God grant you pleasure equaling that which your column affords so many of us."

GOOD SUGGESTION

"In reading the letters in your Service Bureau column, I have noticed so many letters from readers who want to know the sources for out-of-print books or for poems they have enjoyed.

"Since most of us, even in remote areas, now have access to public libraries, it is a source of amazement to me that the public doesn't turn there for its information.

"Many people are not aware that these publicly-supported institutions are eager to help them find such information. You would be doing your readers a service if you would tell them about the great strides public libraries have been making and what service they are able to provide.

"We spend five years getting the training to help people find what they need in books and periodicals, only to find that but a fraction of our public is even aware of a need for our training. For too many people, a librarian is a cross old woman who stamps out books, says sh-h-h all day, and fines one for being late returning a book."

A Librarian.

BOOKS this Christmas



LIVE AND LEARN
Hugh Cosline\$3.00

THE WORDS AND THE MUSIC
E. R. Eastman\$3.00

Poultry Production
L. E. Card\$7.00

WALKING THE BROAD HIGHWAY
(Paperback)
E. R. Eastman\$2.00

COMMERCIAL POULTRY FARMING
T. B. Charles & H. O. Stuart\$4.75

EAT WELL & STAY WELL
Ancel & Margaret Keys\$4.50

JOY OF COOKING
I. S. Rombauer & M. R. Becker. . . \$5.95

MILK PRODUCTION & PROCESSING
H. F. Judkins & H. A. Keener. . . \$7.95

SUCCESSFUL BROILER GROWING
Hoffmann & Givin\$3.50

THE MEAT WE EAT
P. Thomas Ziegler. \$7.25

TURKEY MANAGEMENT
Marsden & Martin\$7.00

USING ELECTRICITY ON THE FARM
J. Roland Hamilton. \$8.00

PLEASE NOTE: We have a very limited supply of some of the books listed—in some cases only one or two volumes. Orders will be filled in the order received and checks returned on any we cannot fill.

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Please send the following books:

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Ithaca, New York 14851

How To Put Yourself In MEXICO

Sixteen days on your American Agriculturist-TSB February Mexican Holiday wouldn't be complete without time in the fabulous, fashionable semi-tropical port of Acapulco - noted for its harbor, fine beaches, and each evening's return of the fishing fleet. In this ancient-modern city (founded 1550) you'll sense Mexico's venerable history, yet enjoy its progressive forward-looking people.



Acapulco, Taxco, Mexico City, Toluca, The Monastery of Acolman, The Shrine of Guadalupe, Pyramids of Teotihuacan, Cuernavaca, Puebla Fortin de las Flores, Cordoba, and Orizaba - all these romantic spots - yours to see and enjoy on the American Agriculturist Holiday in Mexico. Travel with friendly folks under the no worry director of experienced Travel Service Bureau.

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Your Christmas Gift

I have always held that there are two basic truths that should guide our lives. It is necessary for every one to work to the best of his ability and training in order to make a living. But it is equally important for every one of us to learn and practice how to live, how to get the most out of life in real happiness.

More and more as the years roll rapidly by, I realize that the secret of successful living lies in the giving one's self to those you love, to your friends, and to everyone so far as your health and ability permit. That is the basic truth that Christ taught. That is the truth that Christmas should emphasize. It is not the giving of material

things that really counts. It is not necessarily in the leadership of great enterprises, but in the giving of ourselves every day.

True happiness is best secured by unselfishness, by selflessness, by following as far as is possible the Golden Rule, not only in large things but in the small things of everyday life and living . . . and the key word of such giving is kindness.

Ella Wheeler Wilcox put it into words when she wrote:

So many gods, so many creeds,

So many paths that wind and wind,

When just the art of being kind

Is all this sad world needs.

STILL THEY COME!

Every day brings letters from enthusiastic readers of my book, "Journey to Day Before Yesterday." Someone buys the book and immediately recommends it to a friend. So the word gets around. I had hoped that older people would like it, but I never dreamed that both old and young would be so enthusiastic about it.

One interesting letter came from a grandfather who had been telling his grandson stories of his youth. Then the boy read "Journey to Day Before Yesterday" and said to his grandfather: "Gee, Grandpa, those stories you told me were really true, weren't they?"

So many and so emphatic have been these readers that it has given me confidence to recommend it to my friends.

Already orders are pouring in for the book for Christmas presents. The mails are slow, but we can still get the book to you or to your friend if you order immediately.

To get a copy send check or money order for \$5.95 (plus twelve cents tax in New York State) to American Agriculturist, Department Book, Savings Bank Building, Ithaca, New York 14850.

IMPORTANT JOB

I don't want to bring up an unpleasant subject, but the time is fast approaching when farmers must struggle with those complicated, irritating, frustrating income tax reports. They are always hard enough anyway, but without well kept records it is almost impossible to fill out the income tax report.

I can remember the time, as many of you can, when farmers could carry the details of their simple business in their heads or by a few records in the desk drawer. But no longer. A modern farm should have a room or at least a place set aside where the

details of the business can be recorded every day just as regularly as you milk and feed the cows.

Not only are carefully-kept records absolutely necessary for your reports, but without them, you can easily make mistakes in a modern farm business that would cost you hundreds of dollars, without your even realizing it until it was too late.



ED EASTMAN'S PAGE



GOT ENOUGH HAY?

Along about the first of March, many dairymen start worrying about whether or not their hay and silage will last until pasture time. But the time to worry about it is in December or January. Waiting until spring to provide roughage may cost you plenty.

It is possible to get a rough estimate of how much hay you will need to last you through. Generally speaking, a cow should have a pound of hay for one hundred pounds of body weight. But, of course, this rule will vary according to the quality of the hay and the amount of silage fed. Again speaking generally, three pounds of good silage will replace one pound of good hay.

There are also rules available for measuring your hay and silage. Dr. Lynn R. Brown of the University of Connecticut states that a fourteen hundred pound cow should receive either fourteen pounds of hay or fifty pounds of silage containing 25 percent dry matter. The combination, of course, can be varied, but I think most

SHEEP STONES

In the November issue I printed an interesting letter from Mrs. Anne C. Holst of East Greenwich, Rhode Island, about all the many things stones and rocks are used for . . . like millstones, ciderpress bases, lye or leach stones, mile stones, and stones for a stone wall fence.

Years ago there were miles upon miles of stone wall fences meandering all over the northeastern landscape, mute testimonial to the patient labor of our forefathers. Many is the time when going after the cows in the back pasture I delayed, in a vain attempt, with the help of the old dog, to get a woodchuck out of a stone wall fence. Remember their shrill whistle of warning?

Mrs. Holst wrote that she had recently seen some sheep stones, and I told you that I bet you don't know what they were. Mrs. Holst says that they were a roughly square block of granite a little over a foot in size, about eight inches thick, with a flat U-shape gouged out of its top. These heavy blocks of stone were said to have been placed on the top of a stone wall to "carry" or hold a light rail or a wooden pole. They were called sheep stones because it was said they were effective in keeping the sheep from jumping over the stone wall.

Now here is another one. What was a "racker?" I will give you

just one clue. It was quite a common name or term in the horse and buggy days. Look for the answer on this page in an early issue.

If you know any old-timenames, send them to me.

DOES YOUR

FIRE INSURANCE COVER?

Every time I hear of a farm fire . . . which is all too often . . . I immediately wonder if there was enough insurance fully to cover the loss. Only one person in three carries enough fire insurance needed to replace the building; what you may not realize is that values have greatly increased since your policy was written.

I earnestly urge you to read your policy immediately, then talk the matter over with a reliable insurance man. Action now may save you untold grief later.

WRONG APPROACH

As this is being written women in some cities are trying to boycott food stores because they claim that prices of food are too high. The protest will do no permanent good, because it is based on a misunderstanding of the whole situation.

In the first place, food prices are not high compared with almost any other commodity. For example, factory wages have advanced three to four times faster than food prices. All prices are high and will probably go higher, because we have a war on and war always bring inflation. We have inflation also because we have the most spendthrift government in the history of this country.

Furthermore, one of the chief reasons why food prices seem high is the demand of the consumer herself for fancy and costly wrapping and packaging of food. Many food items are now processed so that about all a housewife has to do is to unwrap them, perhaps heat them a little, and put them on the table.

Personally, I am glad that the housewife has been freed from a lot of drudgery in the kitchen. But let's be fair and recognize that all of this extra service, with the high wages involved in processing and packaging food, costs money.

EASTMAN'S CHESTNUT

Back in the horse and buggy days, there was a funeral for a man in a country village. The cemetery was about two miles from the town and many of the mourners walked. When they were going back after the services at the grave a pouring rain started, and one old fellow was having some difficulty stumbling and staggering along . . . with the aid of a stick. A friend walking beside him said: "Si, how old be ye anyway?"

Si mumbled: "I be ninety-eight come next May."

The friend chewed on this for a minute and then he said: "Si, there ain't much use for you to come back home at all, is there?"

American Agriculturist, December, 1966



Season's Greetings

Now in its 81st year, the North American continues to serve farm families throughout the Northeast with personal protection. In the coming year we pledge again to you our prompt-personal service during your time of need.

We at the North American extend to each of you warmest wishes this Christmas Season. May the New Year bless you with happiness, good health and the opportunity to prosper.

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

THE NORTH AMERICAN COMPANY

FOR LIFE, ACCIDENT & HEALTH INSURANCE (In Other States)

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SAVINGS BANK BUILDING

ITHACA, NEW YORK

"What'll I do? I can't afford a big expensive system for manure liquids!"

Look to New Idea

Yes, sir. A New Idea spreader can handle sloppy manure. Here's how:

New Idea offers farmers an economical "right now" answer to the problem of handling sloppy manure. Every spreader in the New Idea line can be fitted with a positive action hydraulic or mechanical endgate that raises and lowers to trap and save those liquids with their high nitrogen content until you get to the fields. Endgates are structural steel for strength, Penta treated clear yellow pine for acid resistance—and hot sprayed with quality paints for long life.

Got a problem with sloppy manure? Look to New Idea, and get the money saver with a full year written guarantee. New Idea, Coldwater, Ohio.



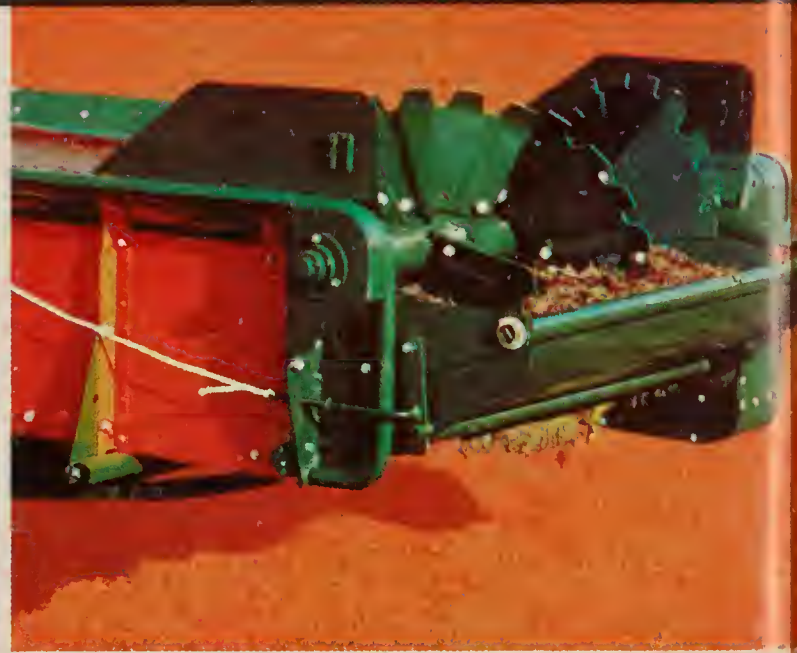
where bold new ideas pay off for profit-minded farmers



HYDRAULIC ENDGATE. Fingertip control of endgate. Uses standard 8" single or double acting cylinder. Keeps liquid off roads and lanes. Hand crank also available. Fits all New Idea Flail and Single Beater spreaders.



MECHANICAL ENDGATE. The economical answer for farms with semi-liquid manure to spread. Easily operated hand crank opens and closes "gate." Snug fit for loading and hauling; fits all New Idea spreaders.



PAN ATTACHMENT. Lowest cost way to handle semi-liquid manure. Rubber flap seals pan in closed position. Tug on the rope and the pan empties. Fits any New Idea Single Beater spreader.



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